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National Technical Information Service

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New York City Air Pollution Project of 1964-1969

Volume II. Data

San Jose State Univ, Calif Dept of Meteorology

Prepared for

Environmental Sciences Research Lab, Research Triangle Park, N C

Aug 77

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PB 277 133

EPA-600/4-77-035b
August 1977

NEW YORK CITY AIR POLLUTION PROJECT OF 1964-1969

Volume II. Data

by

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Contract Number 68-02-1284

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Environmental Sciences Research Laboratory
Research Triangle Park, North Carolina 27711

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OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY
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Volume II presents certain data collected during three test periods of the New York City Air Pollution Project of 1964-1969. The data include: (1) emission rates of sulfur dioxide, heat, and moisture; (2) sulfur dioxide concentrations measured from fixed stations and from automotive platforms; and (3) vertical profiles of sulfur concentrations and air temperature measured from helicopters. The remaining data, maps of airflow and sulfur dioxide concentrations on microfilm, and a magnetic tape listing of pibal observations are available from the National Technical Information Service. Volume I thoroughly describes the entire data set and is available as report number

dioxide

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This report was submitted in fulfillment of Contract No. 68-02-1284 by San Jose State University under the sponsorship of the U.S. Environmental Protection Agency. This report covers the period April 1974 to September 1976, and work was completed as of May 1977.

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ACKNOWLEDGMENTS

The New York City Air Pollution Project was conducted by New York University and was directed by the late Dr. Ben Davidson of the Department of Meteorology and Oceanography at New York University. Dr. Jim Halitsky directed the Project field experiments, and Dr. Conrad Simon directed the Project laboratory research. Dr. Danny Shieh and Dr. Ray Werner, along with Dr. Simon, supplied information on the source emission survey of the Project. The helicopter soundings of the Project were carried out by Betsy and Sandy Proudfit. Dr. Paul Halpern supplied additional information concerning the analysis of the helicopter soundings.

Kevin Crosby, John Lynn, Richard Nederostek, Grover Prowell, and Steve Sundell, all students at San Jose State University, participated in the analysis of the data set. Ruben Dominguez, Al Blanco, Mark Matteson, and Jerry Murphy are responsible for the drafted material appearing in Volume II. Linda LaDuca of San Jose State University typed the first draft of this report, and Brookhaven National Laboratory prepared the second draft.

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DEDICATION

This report is dedicated to the memory of Dr. Ben Davidson of the Department of Meteorology and Oceanography at New York University. Dr. Davidson was the principal investigator of the New York City Air Pollution Project conducted by New York University.

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SECTION 1

INTRODUCTION

Volume II presents some of the actual data collected during the three "primary" test periods -- March 8-12, November 15-17, and December 5-8, 1966 -- of the New York City Air Pollution Project of 1964-1969. Annual emission rates of sulfur dioxide (SO_2), heat, and moisture from the area and point sources in the New York City metropolitan area are also presented.

Volume I describes the complete data set of the project in detail. It should be read carefully before the data contained in this volume or the data set on file at the National Technical Information Service in Springfield, Virginia is used. Questions concerning the interpretation or use of any of the data should be directed to Robert D. Bornstein of the Department of Meteorology at San Jose State University.

SECTION 2

EXPLANATION OF DATA

HOURLY-AVERAGED SO_2 OBSERVATIONS

The surface SO_2 observational network included 33 fixed sites. These sites were divided into three categories according to the group maintaining the particular monitoring device. The network is described and the location of each of the sites is given in Section 6 of Volume I. The instrument originally at New York University (NYU) was moved to its final site at Prospect Park before the first test period of the project. Therefore the NYU site does not appear in the list of sites given in Table 1 of this volume.

The hourly-averaged SO_2 observations, described in Section 6 of Volume I, are listed in Appendix I of this volume in chronological order within the three groups defined in Table 1. Values are given for the 11 days constituting the three "primary" test periods defined in Volume I. The averaging period was centered on the half hour and the units for the values are in ppm. Values in the Group II data followed by an asterisk have not been corrected for carbon dioxide (CO_2) interference.

SULFUR DIOXIDE TRAVERSES

Volume I describes a series of SO_2 concentration distribution profiles that were constructed across Manhattan (along 79th Street) by using data measured by instruments on a specially equipped van. The observations were carried out to evaluate the effect of source-free Central Park on the buildup of SO_2 concentration across Manhattan. The locations of both Central Park and 79th Street are given in Section 6 of Volume I.

Unfortunately, these traverses are only extant for one of the three primary test periods, i.e., the March 1966 test. The available traverses from this period are given chronologically in Appendix II of this volume. The street name abbreviations appear in the figures defined in Section 6 of Volume I. Wind and travel directions and traverse times in EST are shown on each traverse.

HELICOPTER SOUNDINGS

Section 3 of Volume I describes the collection of SO_2 and temperature soundings through the lowest kilometer of the atmosphere by using a helicopter equipped with instruments. The soundings from the three primary test periods are given chronologically in Appendix III of this volume.

Locations for each of the sounding sites appearing in Appendix III can be found in Section 3 of Volume I. The time of each sounding in EST is given below the name of the sounding in the appendix. The direction (upwards or downwards) of each sounding is indicated by the direction of the arrow following the sounding name. The units of the temperature soundings (marked with a "T") are in degrees centigrade (°C). The units of the SO_2 soundings (marked with an "S") are in parts per million (ppm).

EMISSION INVENTORIES

As described in Section 2 of Volume I, the annual emission rates of SO_2, heat, and moisture due to the combustion of fossil fuels in the New York City metropolitan area were computed from fuel usage data. The total annual emissions from both fixed and mobile area sources were carried out on a 1-mile by 1-mile grid and then on a 0.5-mile by 0.5-mile grid. Both grids had Battery Park, the southern tip of Manhattan Island, as their origin. Figures 1-6 of Volume II present the results of the area source computations.

Total annual SO_2, heat, and moisture emissions from all of the point sources within the grid network are given in Table 2 of Volume II. Site numbers preceded by an asterisk have had their annual heat and moisture emissions estimated from correlations with their annual SO_2 emissions, and not from their annual fuel usage data (as described in Volume I). Maps showing the location of each of the power plant ("P"), manufacturing ("M"), commercial ("C"), and hospital ("H") sources are given in Volume I. Note that the emission values of Table 2 are not assigned to individual stacks for those sites having multiple adjacent stacks, as indicated in Table 10 of Volume I.

Suggested methods for prorating both the annual area and point source emissions into daily and hourly emission rates are given in Volume I. However, hour-by-hour emission rates of SO_2 were computed for those power plants for which hour-by-hour fuel usage data were available. Appendix IV of Volume II gives the values for the eleven days constituting the three primary test periods. The location of the sites listed in Appendix IV can be found in Volume I. The indicated times are the midpoint values of the 1-hour emission time intervals.

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TABLE 1. NAMES AND IDENTIFICATION NUMBERS OF FIXED SURFACE SO_2 MONITORING STATIONS

GROUP I. (NYU)

No.	Name
336	Passaic
337	Pollack
66-3	Central Park (Belvedere)
338	Prospect Park
339	JFK Airport
340	Einstein
66-2	Library

GROUP II. (CONSOLIDATED EDISON)

No.	Name
1	Empire State
2	Irving Place
3	Queens Boulevard
4	Atlantic and Jamaica
5	Pitkin Avenue
6	West End Avenue
7	125th Street
8	Van Nest
9	Queens College
10	Jamaica

GROUP III. (NYU)

No.	Name
1	Willowbrook
2	Battery
3	Community College
4	Green Point
5	Skillman Avenue
6	Bus Terminal
7	Arsenal
8	Astoria
9	La Guardia
10	Samuel Gompers H.S.
11	168th Street
12	NYU/TECH
13	Wyckoff
14	Boyce Thompson
15	121st Street

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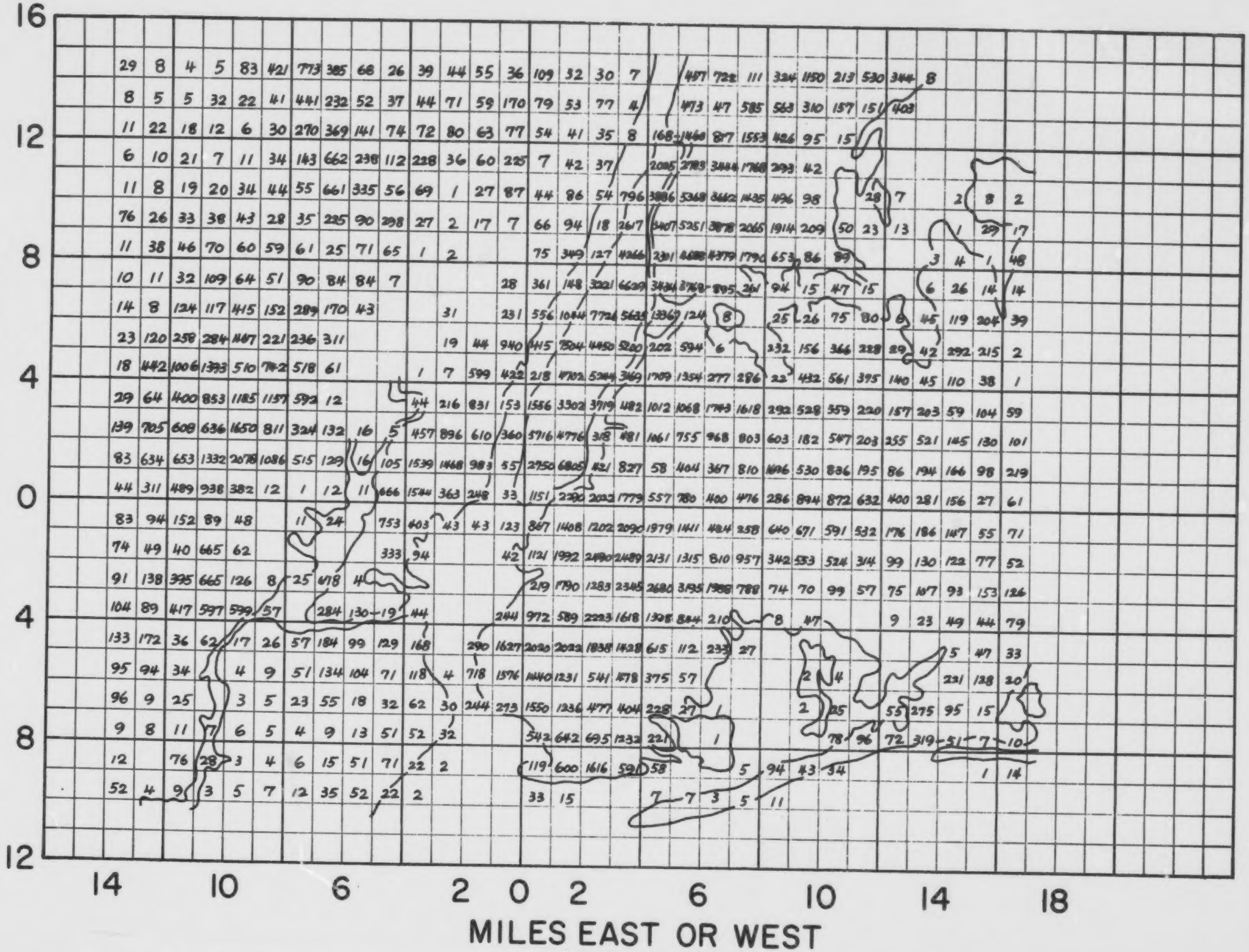
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MILES NORTH OR SOUTH
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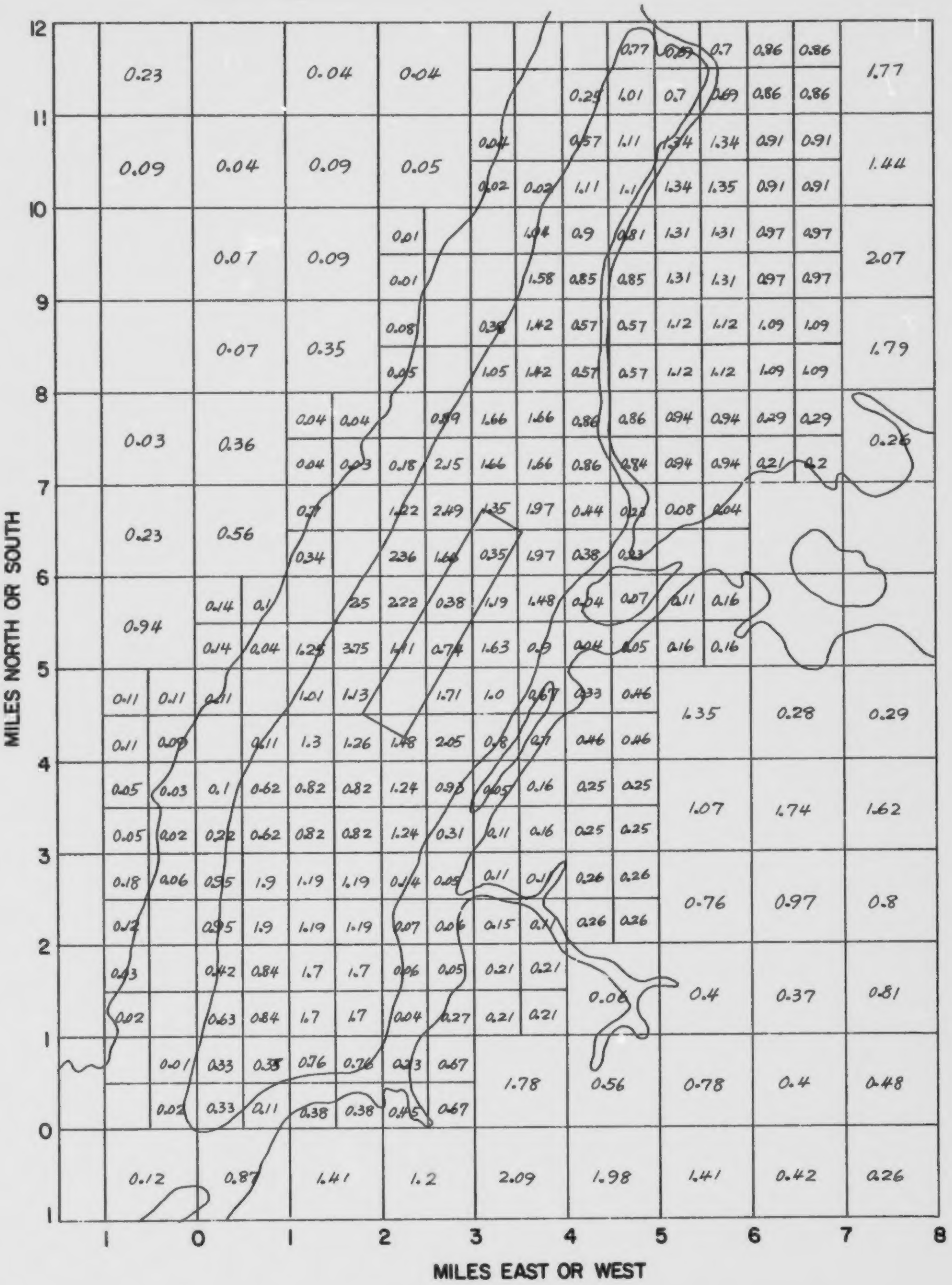
MILES EAST OR WEST

Figure 1. Emission of SO_2 in NYC area from fixed and mobile area sources on a 1-mile by 1-mile grid during 1965 in tons per year.



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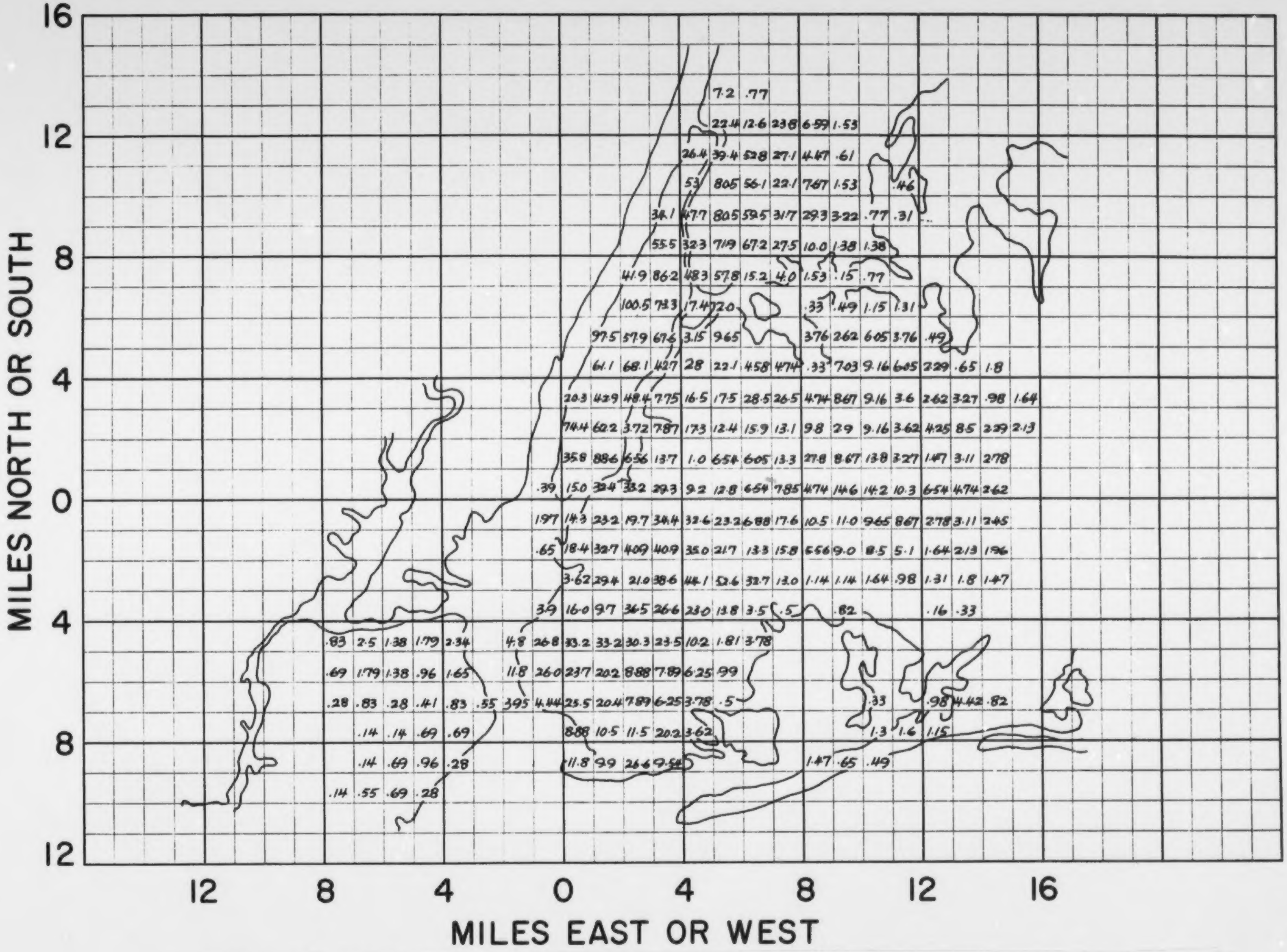
MILES NORTH OR SOUTH
1 0 1 2 3 4 5 6 7 8
MILES EAST OR WEST
0.23 0.04 0.04 0.77 0.87 0.7 0.86 0.86 1.77
0.25 1.01 0.7 0.69 0.86 0.86
0.09 0.04 0.09 0.05 0.04 0.57 1.11 1.34 1.34 0.91 0.91 1.44
0.02 0.02 1.11 1.1 1.34 1.35 0.91 0.91
0.07 0.09 0.01 1.04 0.9 0.81 1.31 1.31 0.97 0.97 2.07
0.01 1.58 0.85 0.85 1.31 1.31 0.97 0.97
0.07 0.35 0.08 0.36 1.42 0.57 0.57 1.12 1.12 1.09 1.09 1.79
0.05 1.05 1.42 0.57 0.57 1.12 1.12 1.09 1.09
0.03 0.36 0.04 0.04 0.59 1.66 1.66 0.86 0.86 0.94 0.94 0.29 0.29 0.26
0.04 0.03 0.18 2.15 1.66 1.66 0.86 0.84 0.94 0.94 0.21 0.2
0.23 0.56 0.27 1.22 2.49 1.35 1.97 0.44 0.23 0.08 0.04
0.34 2.36 1.66 0.35 1.97 0.38 0.23
0.94 0.14 0.1 2.5 2.22 0.38 1.19 1.48 0.04 0.07 0.11 0.16
0.14 0.04 1.25 3.75 4.11 0.74 1.63 0.9 0.04 0.05 0.16 0.16
0.11 0.11 0.11 1.01 1.13 1.71 1.0 0.67 0.33 0.46 1.35 0.28 0.29
0.11 0.09 0.11 1.3 1.26 1.48 2.05 0.8 0.7 0.46 0.46
0.05 0.03 0.1 0.62 0.82 0.82 1.24 0.93 0.05 0.16 0.25 0.25 1.07 1.74 1.62
0.05 0.02 0.22 0.62 0.82 0.82 1.24 0.31 0.11 0.16 0.25 0.25
0.18 0.06 0.95 1.9 1.19 1.19 0.14 0.05 0.11 0.1 0.26 0.26 0.76 0.97 0.8
0.12 0.95 1.9 1.19 1.19 0.07 0.06 0.15 0.11 0.26 0.26
0.43 0.42 0.84 1.7 1.7 0.06 0.05 0.21 0.21 0.06 0.4 0.37 0.81
0.02 0.63 0.84 1.7 1.7 0.04 0.27 0.21 0.21
0.01 0.33 0.35 0.76 0.76 0.23 0.67 1.78 0.56 0.78 0.4 0.48
0.02 0.33 0.11 0.38 0.38 0.45 0.67
0.12 0.87 1.41 1.2 2.09 1.98 1.41 0.42 0.26

Figure 2. Emission of SO_2 in Manhattan from fixed and mobile area sources on a 0.5-mile by 0.5-mile grid during 1965 in 10^3 tons per year.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MILES EAST OR WEST
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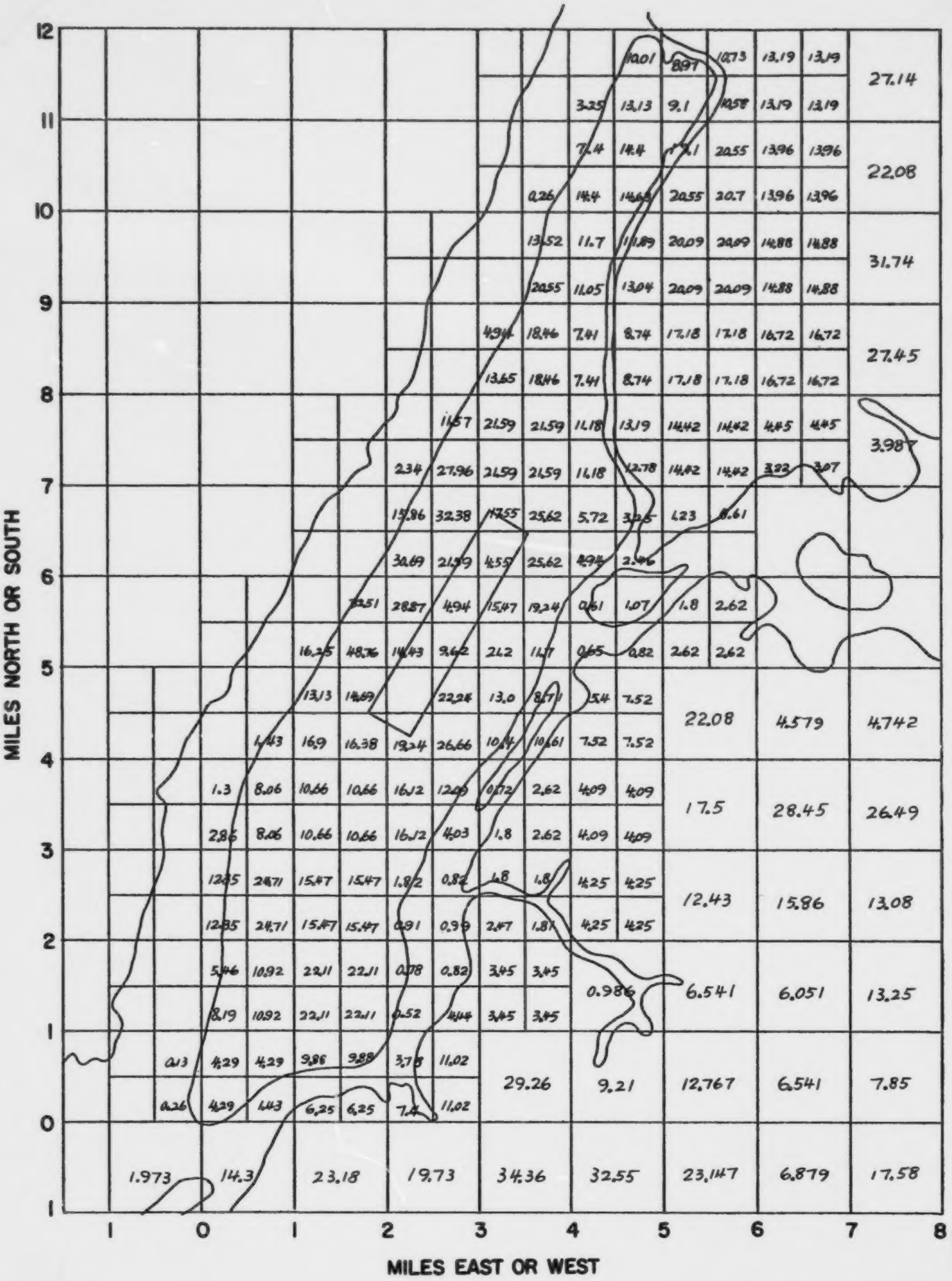
Figure 3. Anthropogenic heat production from fixed and mobile area sources on a 1-mile by 1-mile grid in NYC during 1965 in 10^{11} Btu per year.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MILES EAST OR WEST
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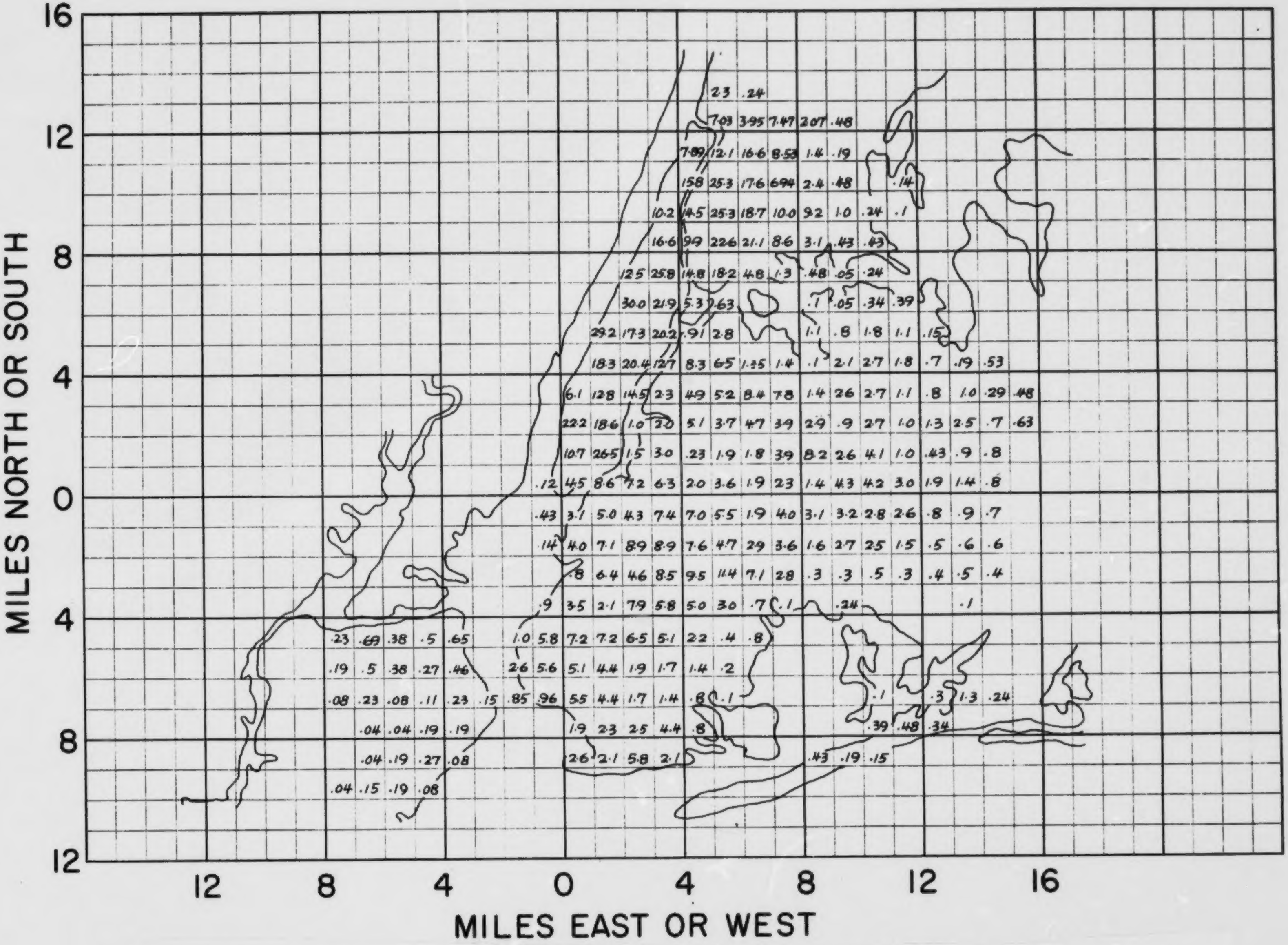
Figure 4. Anthropogenic heat production from fixed and mobile area sources on a 0.5-mile by 0.5-mile grid in Manhattan during 1965 in 10^{11} Btu per year.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7.89 12.1 16.6 8.53 1.4 .19
15.8 25.3 17.6 6.94 2.4 .48 .14
10.2 14.5 25.3 18.7 10.0 9.2 1.0 .24 .1
16.6 9.9 22.6 21.1 8.6 3.1 .43 .43
12.5 25.8 14.8 18.2 4.8 1.3 .48 .05 .24
30.0 21.9 5.3 .63 .1 .05 .34 .39
29.2 17.3 20.2 .91 2.8 1.1 .8 1.8 1.1 .15
18.3 20.4 12.7 8.3 6.5 1.35 1.4 .1 2.1 2.7 1.8 .7 .19 .53
6.1 12.8 14.5 2.3 4.9 5.2 8.4 7.8 1.4 2.6 2.7 1.1 .8 1.0 .29 .48
22.2 18.6 1.0 2.0 5.1 3.7 4.7 3.9 2.9 .9 2.7 1.0 1.3 2.5 .7 .63
10.7 26.5 1.5 3.0 .23 1.9 1.8 3.9 8.2 2.6 4.1 1.0 .43 .9 .8
.12 4.5 8.6 7.2 6.3 2.0 3.6 1.9 2.3 1.4 4.3 4.2 3.0 1.9 1.4 .8
.43 3.1 5.0 4.3 7.4 7.0 5.5 1.9 4.0 3.1 3.2 2.8 2.6 .8 .9 .7
.14 4.0 7.1 8.9 8.9 7.6 4.7 2.9 3.6 1.6 2.7 2.5 1.5 .5 .6 .6
.8 6.4 4.6 8.5 9.5 11.4 7.1 2.8 .3 .3 .5 .3 .4 .5 .4
.9 3.5 2.1 7.9 5.8 5.0 3.0 .7 .1 .24 .1
.23 .69 .38 .5 .65 1.0 5.8 7.2 7.2 6.5 5.1 2.2 .4 .8
.19 .5 .38 .27 .46 2.6 5.6 5.1 4.4 1.9 1.7 1.4 .2
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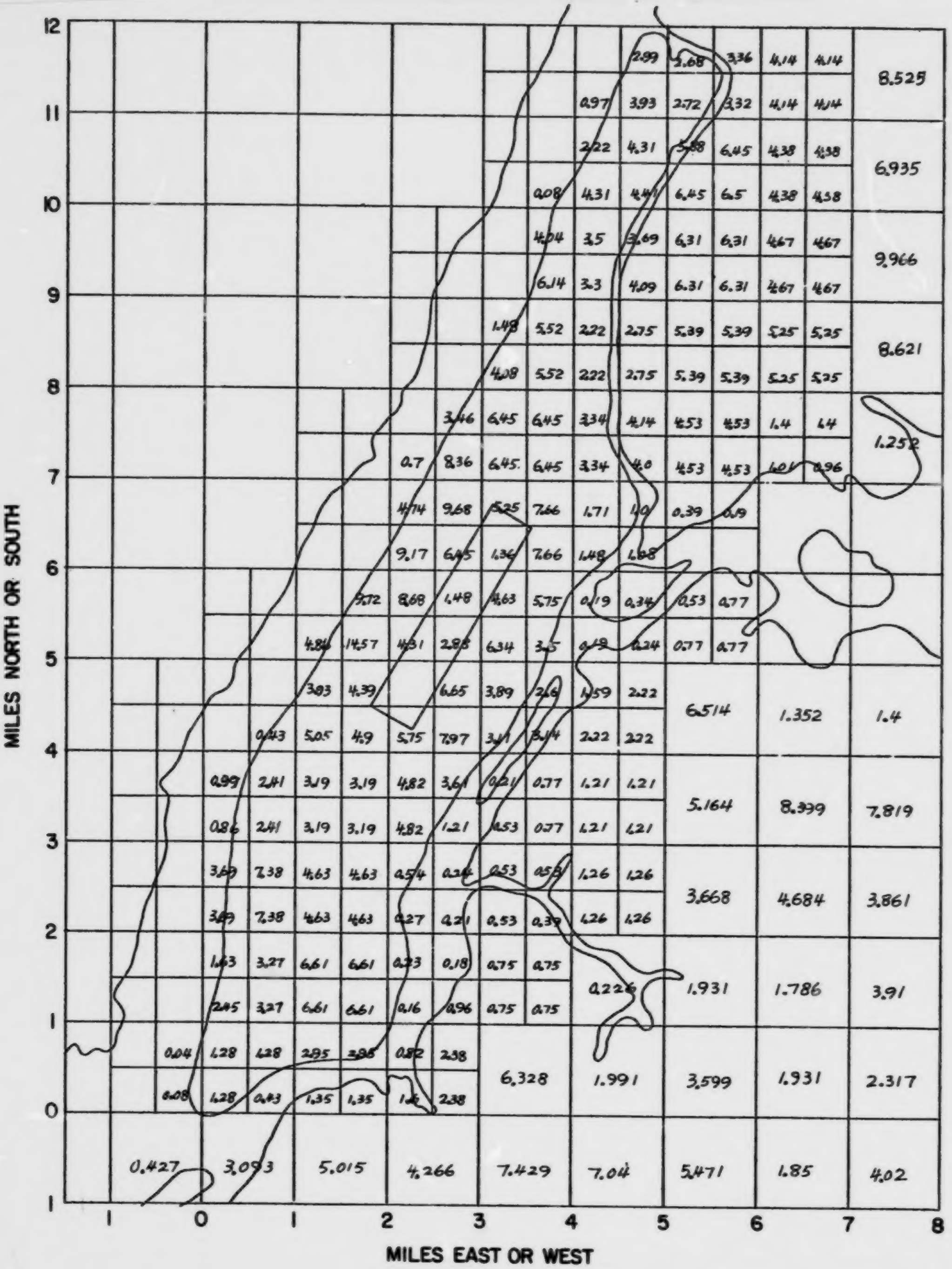
Figure 5. Anthropogenic moisture production from fixed and mobile area sources on a 1-mile by 1-mile grid in NYC during 1965 in 10^{10} grams per year.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0.93 2.41 3.19 3.19 4.82 3.61 0.21 0.77 1.21 1.21
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0.86 2.41 3.19 3.19 4.82 1.21 0.53 0.77 1.21 1.21
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6.328 1.991 3.599 1.931 2.317
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0.427 3.093 5.015 4.266 7.429 7.04 5.471 1.85 4.02

Figure 6. Anthropogenic moisture production from fixed and mobile area sources on a 0.5-mile by 0.5-mile area grid in Manhattan during 1965 in 10^{10} grams per year.

TABLE 2. ANNUAL SO_2, HEAT, AND MOISTURE EMISSIONS FROM POINT SOURCES IN THE NEW YORK CITY AREA DURING 1965

SITE #	SO_2 (ton/year)	HEAT (10^{12} Btu/year)	MOISTURE (10^{10} gm/year)
P- 1	54310	32.65	75.53
P- 2	14050	18.24	31.25
P- 3	13550	7.32	14.72
P- 4	30760	11.42	17.53
* P- 5	35230	28.34	72.73
* P- 6	46020	37.38	97.15
P- 7	12970	6.32	12.16
* P- 8	850	0.46	5.06
P- 9	55590	37.51	87.14
P-10	4500	5.35	10.82
P-11	43220	33.62	64.43
* P-12	5630	3.55	5.75
P-13	30690	19.45	108.03
P-14	57910	59.42	192.27
P-15	10280	8.88	13.75
P-16	44790	68.75	148.15
P-17	22550	28.15	94.80
P-18	15440	9.69	16.31
* P-19	4830	2.88	3.94
* P-20	27470	21.84	55.17
P-21	4380	2.51	6.45
P-22	9060	4.47	7.56
P-23	24530	17.06	40.66
P-24	42600	19.59	50.26
* P-25	2280	0.74	1.83
* P-26	6050	3.90	6.70
* P-27	6530	4.30	7.79

*Indicates that heat and moisture emissions were estimated from correlations with SO_2 emissions.

(continued)

TABLE 2 (continued)

SITE #	SO_2 (ton/year)	HEAT (10^{10}Btu/year)	MOISTURE (10^{10}gm/year)
C- 1	157	33.24	0.55
C- 2	691	60.35	1.56
C- 3	604	52.50	1.35
C- 4	17	7.95	0.20
C- 5	672	67.52	1.73
C- 6	1229	138.57	3.56
C- 7	311	24.67	0.65
C- 8	530	40.50	1.04
C- 9	604	52.50	1.35
C-10	120	9.37	0.24
C-11	1556	61.80	1.59
C-12	1637	15.60	0.40
C-13	277	21.15	0.54
C-14	302	24.46	0.63
C-15	6714	514.00	13.19
C-16	150	28.50	0.73
C-17	5203	4.27	0.12
C-18	181	14.40	0.37
C-19	10150	1418.30	50.55
C-20	140	12.24	0.31
C-21	2885	225.00	5.77
C-22	3303	71.40	1.74
C-23	725	71.13	2.07
* C-24	4547	417.96	13.34
C-25	308	41.76	1.07
C-26	1003	260.70	6.69
C-27	634	3.75	0.01
* C-28	1880	158.09	4.55
C-29	864	75.00	1.92
C-30	14390	1387.04	49.49
C-31	310	5.72	0.28
C-32	4451	220.50	5.66
C-33	1472	112.50	2.89
C-34	169	15.00	0.38
C-35	1204	93.90	2.41
* C-36	1170	88.90	2.21
* C-37	1820	152.24	4.35
* C-38	250	7.74	0.83
C-39	140	12.24	0.31
C-40	950	145.00	2.19
C-41	5474	512.20	5.94
C-42	237	38.09	0.99

*Indicates that heat and moisture emissions were estimated from correlations with SO_2 emissions.

(continued)

TABLE 2 (continued)

SITE #	SO_2 (ton/year)	HEAT (10^{10} Btu/year)	MOISTURE (10^{10} gm/year)
H- 1	180	13.84	0.36
H- 2	210	16.15	0.42
H- 3	100	7.69	0.20
H- 4	160	12.31	0.32
H- 5	120	9.23	0.24
H- 6	800	61.53	1.58
H- 7	180	13.84	0.36
H- 8	150	11.54	0.30
H- 9	140	10.76	0.28
H-10	280	21.52	0.55
H-11	110	8.46	0.22
H-12	230	17.69	0.45
H-13	160	12.31	0.32
H-14	100	7.69	0.20
H-15	120	9.23	0.24
H-16	270	20.77	0.53
H-17	110	8.46	0.22
H-18	100	7.69	0.20
H-19	130	10.00	0.26
H-20	680	52.31	1.34
H-21	110	8.46	0.22
H-22	100	7.69	0.20
H-23	190	14.62	0.38
H-24	140	10.76	0.28
H-25	200	15.38	0.40
H-26	240	18.46	0.48
H-27	940	72.31	1.86
H-28	160	12.31	0.32
H-29	190	14.62	0.38
H-30	100	7.69	0.20
H-31	530	40.77	1.05
H-32	290	22.31	0.57
H-33	910	70.00	1.80
H-34	200	15.38	0.40
H-35	240	18.46	0.48
H-36	350	26.92	0.69
H-37	190	14.62	0.38
H-38	500	38.46	1.00
H-39	160	12.31	0.32
H-40	1290	99.23	2.55
H-41	220	16.92	0.44
H-42	440	33.85	0.88
H-43	930	71.54	1.84
H-44	390	30.00	0.77
H-45	270	20.77	0.54

(continued)

TABLE 2 (continued)

SITE #	SO_2 (ton/year)	HEAT (10^{10} Btu/year)	MOISTURE (10^{10} gm/year)
H-46A	950	73.08	1.88
H-46B	150	11.54	0.30
H-47	240	18.46	0.48
H-48	290	22.31	0.58
H-49	130	10.00	0.26
H-50	310	23.85	0.61
H-51	460	35.38	0.90
H-52	220	16.92	0.44
H-53	1570	120.77	3.10
H-54	380	29.23	0.76
H-55	120	9.23	0.24
H-56	150	11.54	0.30
H-57	690	53.08	1.36
H-58	100	7.69	0.20
H-59	150	11.54	0.30
H-60	100	7.69	0.20
H-61	170	13.08	0.34
H-62	160	12.31	0.32

(continued)

TABLE 2 (continued)

SITE #	SO_2 (ton/year)	HEAT (10^{10} Btu/year)	MOISTURE (10^{10} gm/year)
M- 1	1099	105.00	2.69
M- 2	389	33.75	0.87
M- 3	788	68.40	1.76
M- 4	61	8.25	0.21
M- 5	1207	122.75	1.93
M- 6	707	67.50	1.73
M- 7	1283	217.50	3.29
M- 8	1187	135.00	3.46
M- 9	387	33.60	0.86
M-10	423	89.10	0.79
M-11	218	23.56	0.60
M-12	330	21.00	0.54
M-13	193	14.95	0.38
M-14	477	44.70	1.15
M-15	161	37.18	1.12
M-16	683	90.00	2.31
M-17	745	109.50	2.81
M-18	191	96.98	0.61
M-19	336	33.68	0.86
M-20	1191	114.00	2.93
M-21	459	75.50	1.35
M-22	405	91.80	0.82
* M-23	300	45.20	0.86
M-24	512	60.00	1.54
M-25	117	16.77	0.59
M-26	441	82.65	1.26
M-27	257	28.61	0.73
M-28	86	428.90	20.17
M-29	879	83.32	2.12
M-30	1457	126.42	2.02
M-31	319	37.80	0.34
M-32	110	21.00	0.54
M-33	157	15.00	0.39
M-34	314	45.38	1.18
M-35	1881	95.70	1.45
M-36	509	48.60	1.25
M-37	160	48.75	1.23
M-38	585	62.66	1.60
M-39	2230	120.00	3.08
M-40	765	75.00	1.93
M-41	609	33.27	0.61
M-42	1740	61.16	5.99
M-43	400	272.95	7.42
M-44	279	47.06	1.79
* M-45	230	40.81	0.70

*Indicates that heat and moisture emissions were estimated from correlations with SO_2 emissions.

(continued)

TABLE 2 (continued)

SITE #	SO_2 (ton/year)	HEAT (10^{10}Btu/year)	MOISTURE (10^{10}gm/year)
M-46	673	52.50	1.35
M-47	846	73.50	1.89
* M-48	160	36.42	0.53
M-49	3500	472.30	5.16
M-50	21760	406.70	8.20
* M-51	200	38.93	0.63
* M-52	100	32.66	0.39
* M-53	100	32.66	0.39
* M-54	110	33.29	0.42
* M-55	200	38.93	0.63
* M-56	250	42.07	0.74
* M-57	100	32.66	0.39
* M-58	620	65.25	1.61
* M-59	100	32.66	0.39
* M-60	300	45.20	0.86
M-61	133	37.80	0.34
* M-62	270	43.32	0.79
* M-63	260	42.69	0.77
* M-64	100	32.66	0.39
* M-65	190	38.30	0.60
* M-66	530	59.61	1.40
* M-67	230	40.81	0.70
* M-68	290	44.57	0.84
* M-69	230	40.81	0.70
* M-70	100	32.66	0.39
* M-71	250	42.07	0.74
M-72	19	0.87	0.02
* M-73	100	32.66	0.39
* M-74	200	38.93	0.63
* M-75	250	42.07	0.74
* M-76	220	40.18	0.67
* M-77	100	32.66	0.39
* M-78	180	37.68	0.58
* M-79	120	33.92	0.44
* M-80	210	39.56	0.65
* M-81	100	32.66	0.39
* M-82	120	33.92	0.44
* M-83	120	33.92	0.44
* M-84	540	60.24	1.42
* M-85	200	38.93	0.63
* M-86	110	33.92	0.42
* M-87	170	37.05	0.56
* M-88	130	34.54	0.46
* M-89	120	33.92	0.44
* M-90	230	40.81	0.70

*Indicates that heat and moisture emissions were estimated from correlations with SO_2 emissions.

(continued)

TABLE 2 (continued)

SITE #	SO_2 (ton/year)	HEAT (10^{10} Btu/year)	MOISTURE (10^{10} gm/year)
* M- 91	110	33.29	0.42
* M- 92	290	44.57	0.84
* M- 93	150	35.80	0.51
* M- 94	110	33.29	0.42
* M- 95	170	37.05	0.56
* M- 96	290	44.57	0.84
* M- 97	150	35.80	0.51
* M- 98	180	37.68	0.58
* M- 99	250	42.07	0.74
* M-100	120	33.92	0.44
* M-101	100	32.66	0.39
* M-102	140	35.17	0.49
* M-103	350	48.33	0.98
* M-104	800	76.54	2.03
* M-105	1590	126.05	3.88
* M-106	120	33.92	0.44
* M-107	610	64.63	1.59
* M-108	150	35.80	0.51
* M-109	1780	137.96	4.33
* M-110	410	52.09	1.12
* M-111	420	52.72	1.14
* M-112	310	45.83	0.89
* M-113	100	32.66	0.39
* M-114	200	38.93	0.63
* M-115	880	81.55	2.22
* M-116	780	75.28	1.99
* M-117	1450	117.28	3.56
* M-118	960	86.56	2.41
M-119	824	154.93	5.10
M-120	6470	496.42	12.73
M-121	120	9.96	0.25
M-122	321	48.93	0.74
* M-123	100	32.66	0.39
M-124	159	13.50	0.35
* M-125	110	33.29	0.42
M-126	2914	280.49	7.19
* M-127	150	35.80	0.51
M-128	144	13.74	0.35
* M-129	490	75.68	1.31
M-130	353	41.85	0.37

*Indicates that heat and moisture emissions were estimated from correlations with SO_2 emissions.

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TYPING GUIDE SHEET

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APPENDIX I

TABULATED HOURLY-AVERAGED SO_2 VALUES IN PARTS PER MILLION

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BOTTOM OF IMAGE AREA OUTSIDE DIMENSION FOR TABLES AND ILLUSTRATIONS

3/8"

PAGE NUMBER

EPA-287 (Cin.)
(4-76)

March 8, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.05	0.07	0.03	0.10	0.03	0.03	0.22
0130	0.02	0.09	0.02		0.03		
0230	0.05	0.07	0.10	0.03	0.03	0.10	0.16
0330	0.05	0.05	0.07		0.00		
0430	0.05	0.05	0.08	0.05	0.03	0.08	0.42
0530	0.07	0.07	0.13		0.03		
0630	0.07	0.12	0.15	0.01	0.07	0.15	0.34
0730	0.06	0.03	0.19		0.05		
0830	0.06	0.07	0.17	0.03	0.03	0.17	0.26
0930	0.05	0.07	0.11		0.03		
1030	0.03	0.13	0.11	0.03	0.03	0.11	0.18
1130	0.04	0.17	0.07		0.03		
1230	0.04	0.09	0.09	0.04	0.03	0.09	
1330	0.03	0.11	0.02		0.03		
1430	0.03	0.11	0.03	0.04	0.03	0.03	0.14
1530	0.03	0.09	0.08		0.03		
1630	0.03	0.06	0.07	0.03	0.03	0.07	0.14
1730	0.05	0.09	0.08		0.03		
1830	0.05	0.09	0.10	0.03	0.05	0.10	0.22
1930	0.05	0.09	0.15		0.07		
2030	0.06	0.07	0.11	0.03	0.03	0.11	0.18
2130	0.07	0.07	0.17		0.03		
2230	0.10	0.09	0.14	0.03	0.03	0.14	0.16
2330	0.07	0.11	0.16		0.05		

March 9, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.10	0.11	0.15	0.04	0.05	0.15	0.12
0130	0.07	0.07	0.11		0.07		
0230	0.10	0.11	0.07	0.01	0.05	0.07	0.16
0330	0.09	0.10	0.04		0.05		
0430	0.10	0.11	0.08	0.03	0.07	0.08	0.22
0530	0.10	0.12	0.10		0.07		
0630	0.10	0.14	0.17	0.01	0.09	0.17	0.42
0730	0.10	0.18	0.27		0.13		
0830	0.06	0.26	0.23	0.04	0.13	0.23	0.50
0930	0.06	0.25	0.38		0.11		
1030	0.07	0.32	0.42	0.07	0.09	0.42	0.22
1130	0.05	0.30	0.19		0.11		
1230	0.05	0.20	0.13	0.18	0.09	0.13	0.16
1330	0.03	0.15	0.11		0.06		
1430	0.03	0.12	0.11	0.17	0.06	0.11	0.24
1530	0.03	0.14	0.07		0.06		
1630	0.03	0.20	0.05	0.08	0.03	0.05	0.18
1730	0.05	0.21	0.10		0.03		
1830	0.05	0.18	0.15	0.06	0.18	0.15	0.42
1930	0.06	0.15	0.10		0.18		
2030	0.14	0.17	0.05	0.04	0.18	0.05	0.36
2130	0.11	0.20	0.05		0.27		
2230	0.07	0.27	0.05	0.46	0.38	0.05	0.46
2330	0.10	0.12	0.16		0.34		

March 10, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.12	0.14	0.23	0.61	0.33	0.23	0.32
0130	0.15	0.15	0.24	0.61	0.27	0.24	
0230	0.13	0.17	0.23	0.65	0.20	0.23	0.56
0330	0.10	0.18	0.24	0.56	0.24	0.24	
0430	0.12	0.22	0.26	0.21	0.26	0.26	0.48
0530	0.11	0.30	0.27	0.61	0.36	0.27	
0630	0.20	0.19	0.27	0.56	0.51	0.27	0.88
0730	0.17	0.21	0.24	0.61	0.47	0.24	0.84
0830	0.09	0.19	0.22	0.56	0.46	0.22	0.80
0930	0.06	0.20	0.20	0.39	0.43	0.20	0.52
1030	0.06	0.14	0.19	0.20	0.35	0.19	0.48
1130	0.06	0.07	0.10	0.11	0.24	0.10	
1230	0.03	0.05	0.07	0.11	0.17	0.07	0.28
1330	0.04	0.04	0.03	0.08	0.11	0.03	
1430	0.03	0.01	0.02	0.07	0.11	0.02	0.32
1530	0.03	0.04	0.02	0.05	0.09	0.02	
1630	0.05	0.04	0.02	0.04	0.11	0.02	0.24
1730	0.05	0.07	0.03	0.04	0.11	0.03	0.24
1830	0.06	0.07	0.07	0.10	0.23	0.07	0.28
1930	0.06	0.14	0.11	0.10	0.27	0.11	0.30
2030	0.03	0.25	0.16	0.23	0.30	0.16	0.40
2130	0.06	0.20	0.22	0.65	0.29	0.22	0.00
2230	0.05	0.14	0.19	0.44	0.31	0.19	0.32
2330	0.06	0.12	0.16	0.44	0.21	0.16	

March 11, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.06	0.14	0.13	0.11	0.18	0.13	0.30
0130	0.06	0.14	0.13	0.11	0.20	0.13	
0230	0.06	0.18	0.17	0.29	0.20	0.17	0.42
0330	0.09	0.18	0.22	0.46	0.21	0.22	
0430	0.09	0.20	0.23	0.30	0.23	0.23	0.50
0530	0.12	0.19	0.27	0.30	0.34	0.27	
0630	0.14	0.31	0.35	0.16	0.39	0.35	0.74
0730	0.12	0.33	0.35	0.30	0.29	0.35	0.74
0830	0.15	0.36	0.36	0.10	0.17	0.36	0.80
0930	0.15	0.30	0.41	0.26	0.15	0.41	0.46
1030	0.09	0.21	0.30	0.11	0.09	0.30	0.40
1130	0.07	0.16	0.15	0.10	0.09	0.15	0.46
1230	0.07	0.19	0.22	0.08	0.09	0.22	0.46
1330	0.06	0.16	0.16	0.09	0.09	0.16	0.38
1430	0.04	0.20	0.20	0.08	0.09	0.20	0.28
1530	0.04	0.21	0.20	0.09	0.09	0.20	0.30
1630	0.07	0.28	0.20	0.08	0.09	0.20	0.40
1730	0.04	0.28	0.24	0.05	0.03	0.24	
1830	0.04	0.26	0.17	0.02	0.03	0.17	0.34
1930	0.06	0.32	0.13	0.00	0.00	0.13	
2030	0.06	0.31	0.13	0.00	0.03	0.13	0.28
2130	0.06	0.25	0.13	0.00	0.03	0.13	
2230	0.09	0.18	0.13	0.00	0.03	0.13	0.28
2330	0.06	0.18	0.10	0.00	0.03	0.10	

March 12, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.02	0.15	0.07	0.00	0.06	0.07	0.22
0130	0.07	0.20	0.07		0.03		
0230	0.07	0.15	0.07	0.00	0.03	0.07	0.28
0330	0.07	0.14	0.03		0.06		
0430	0.07	0.17	0.03	0.00	0.06	0.03	
0530	0.10	0.13	0.05		0.09		
0630	0.07	0.21	0.03	0.03	0.06	0.03	0.30
0730	0.10	0.14	0.02		0.06		
0830	0.10	0.11	0.05	0.03	0.03	0.05	0.32
0930	0.11	0.09	0.05		0.03		
1030	0.11	0.05	0.02	0.03	0.03	0.02	0.36
1130	0.08	0.05	0.02		0.03		
1230	0.09	0.09	0.02	0.05	0.03	0.02	
1330	0.10	0.21	0.02		0.03		
1430	0.09	0.12	0.01	0.04	0.03	0.01	
1530	0.09	0.12	0.01		0.03		
1630	0.09	0.11	0.01	0.03	0.03	0.01	
1730	0.07	0.15	0.02		0.06		
1830	0.07	0.19	0.02	0.01	0.06	0.02	
1930	0.10	0.19	0.03		0.03		
2030	0.10	0.19	0.03	0.01	0.03	0.03	
2130	0.07	0.19	0.03		0.03		
2230	0.09	0.09	0.03	0.01	0.03	0.03	
2330	0.09	0.11	0.01		0.09		

November 15, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.04	0.32	0.05	0.14	0.07	0.06	0.13
0130	0.05	0.31	0.03	0.05	0.02	0.05	0.16
0230	0.04	0.32	0.00	0.03	0.02	0.02	0.10
0330	0.04	0.32	0.00	0.03	0.02	0.06	0.13
0430	0.06	0.32	0.05	0.03	0.02	0.09	0.12
0530	0.08	0.35	0.09	0.05	0.05	0.12	0.18
0630	0.09	0.35	0.11	0.09	0.07	0.11	0.26
0730	0.08	0.38	0.09	0.10	0.07	0.12	0.26
0830	0.04	0.34	0.05	0.07	0.05	0.11	0.21
0930	0.08	0.32	0.05	0.05	0.02	0.16	0.14
1030	0.02	0.34	0.03	0.03	0.00	0.16	0.13
1130	0.05	0.34	0.03	0.03	0.02	0.12	0.17
1230	0.07	0.34	0.03	0.03	0.02	0.10	0.13
1330	0.07	0.34	0.03	0.05	0.02	0.10	0.10
1430	0.07	0.32	0.00	0.05	0.00	0.11	0.13
1530	0.07	0.31	0.03	0.02	0.00	0.17	0.18
1630	0.08	0.32	0.05	0.03	0.02	0.10	0.16
1730	0.09	0.32	0.05	0.07	0.06	0.12	0.17
1830	0.09	0.32	0.00	0.09	0.03	0.18	0.20
1930	0.09	0.34	0.08	0.05	0.02	0.28	0.16
2030	0.09	0.32	0.00	0.02	0.02	0.26	0.18
2130	0.11	0.32	0.12	0.02	0.03	0.31	0.12
2230	0.13	0.35	0.08	0.02	0.05	0.11	0.13
2330	0.08	0.34	0.05	0.03	0.02	0.06	0.06

November 16, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.09	0.34	0.05	0.03	0.02	0.05	0.06
0130	0.08	0.34	0.06	0.03	0.02	0.04	0.05
0230	0.08	0.31	0.06	0.03	0.02	0.05	0.06
0330	0.09	0.32	0.08	0.05	0.02	0.06	0.12
0430	0.11	0.34	0.12	0.05	0.03	0.08	0.08
0530	0.13	0.44	0.25	0.09	0.06	0.23	0.13
0630	0.15	0.51	0.47	0.10	0.12	0.28	0.22
0730	0.23	0.54	0.59	0.09	0.15	0.36	0.24
0830	0.22	0.64	0.38	0.05	0.10	0.23	0.34
0930	0.29	0.70	0.21	0.05	0.03	0.23	0.34
1030	0.30	0.36	0.25	0.03	0.05	0.09	0.24
1130	0.23	0.32	0.26	0.02	0.06	0.24	0.12
1230	0.14	0.31	0.16	0.02	0.06	0.18	0.09
1330	0.13	0.31	0.19	0.02	0.03	0.18	0.13
1430	0.13	0.31	0.21	0.02	0.03	0.04	0.12
1530	0.11	0.32	0.18	0.00	0.03	0.04	0.10
1630	0.08	0.32	0.26	0.02	0.06	0.06	0.13
1730	0.09	0.36	0.31	0.02	0.05	0.17	0.14
1830	0.11	0.38	0.28	0.02	0.12	0.26	0.17
1930	0.11	0.43	0.26	0.02	0.20	0.18	0.23
2030	0.14	0.35	0.29	0.02	0.22	0.05	0.19
2130	0.14	0.39	0.23	0.05	0.20	0.05	0.18
2230	0.13	0.38	0.28	0.02	0.18	0.04	0.32
2330	0.11	0.39	0.29	0.07	0.16	0.02	0.21

November 17, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.11	0.45	0.25	0.07	0.19	0.06	0.32
0130	0.06	0.50	0.32	0.09	0.27	0.09	0.32
0230	0.15	0.54	0.34	0.02	0.29	0.02	0.32
0330	0.21	0.54	0.41	0.00	0.23	0.05	0.27
0430	0.18	0.50	0.35	0.00	0.18	0.05	0.27
0530	0.14	0.49	0.54	0.00	0.20	0.10	0.33
0630	0.14	0.46	0.44	0.00	0.18	0.23	0.30
0730	0.17	0.53	0.44	0.02	0.22	0.26	0.33
0830	0.15	0.51	0.44	0.05	0.46	0.35	0.36
0930	0.13	0.49	0.38	0.14	0.49	0.38	0.30
1030	0.13	0.49	0.42	0.15	0.43	0.37	0.26
1130	0.14	0.46	0.41	0.05	0.35	0.30	0.24
1230	0.08	0.50	0.32	0.03	0.30	0.26	0.24
1330	0.08	0.54	0.34	0.03	0.38	0.11	0.26
1430	0.08	0.51	0.35	0.02	0.20	0.10	0.23
1530	0.06	0.49	0.34	0.02	0.07	0.09	0.22
1630	0.14	0.42	0.34	0.02	0.09	0.23	0.17
1730	0.19	0.47	0.32	0.02	0.16	0.31	0.23
1830	0.19	0.54	0.35	0.02	0.26	0.16	0.27
1930	0.21	0.50	0.41	0.03	0.31	0.27	0.28
2030	0.19	0.54	0.41	0.02	0.29	0.06	0.30
2130	0.20	0.54	0.35	0.03	0.33	0.10	0.31
2230	0.20	0.53	0.35	0.02	0.35	0.26	0.39
2330	0.13	0.47	0.31	0.03	0.38	0.30	0.36

December 6, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.09	0.13	0.19	0.10	0.13	0.38	0.18
0130	0.08	0.09	0.21	0.13	0.15	0.14	0.18
0230	0.09	0.09	0.18	0.19	0.09	0.22	0.26
0330	0.10	0.09	0.16	0.13	0.09	0.38	0.14
0430	0.08	0.09	0.16	0.06	0.09	0.11	0.13
0530	0.11	0.13	0.18	0.21	0.10	0.23	0.18
0630	0.09	0.11	0.18	0.22	0.12	0.23	0.21
0730	0.11	0.11	0.18	0.22	0.09	0.19	0.28
0830	0.14	0.19	0.14	0.21	0.12	0.38	0.24
0930	0.11	0.13	0.10	0.16	0.06	0.60	0.19
1030	0.11	0.08	0.08	0.07	0.06	0.54	0.16
1130	0.11	0.16	0.16	0.07	0.05	0.57	0.23
1230	0.09	0.17	0.14	0.04	0.06	0.81	0.24
1330	0.10	0.13	0.14	0.04	0.03	0.53	0.24
1430	0.06	0.09	0.14	0.04	0.02	0.20	0.29
1530	0.06	0.14	0.16	0.04	0.02	0.20	0.19
1630	0.08	0.17	0.18	0.02	0.02	0.21	0.17
1730	0.08	0.20	0.25	0.04	0.05	0.26	0.20
1830	0.09	0.21	0.25	0.05	0.06	0.25	0.17
1930	0.14	0.19	0.31	0.08	0.06	0.26	0.23
2030	0.15	0.13	0.34	0.08	0.07	0.26	0.20
2130	0.17	0.14	0.31	0.08	0.07	0.21	0.14
2230	0.15	0.11	0.26	0.10	0.07	0.15	0.13
2330	0.18	0.11	0.16	0.11	0.07	0.14	0.19

December 7, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.16	0.11	0.14	0.10	0.05	0.13	0.17
0130	0.16	0.08	0.12	0.08	0.06	0.08	0.17
0230	0.17	0.08	0.14	0.05	0.05	0.07	0.17
0330	0.15	0.08	0.12	0.05	0.05	0.08	0.14
0430	0.15	0.11	0.18	0.05	0.06	0.14	0.19
0530	0.17	0.17	0.34	0.07	0.05	0.24	0.30
0630	0.19	0.09	0.19	0.05	0.05	0.29	0.52
0730	0.23	0.09	0.61	0.02	0.05	0.14	0.24
0830	0.21	0.09	0.61	0.02	0.07	0.12	0.18
0930	0.24	0.06	0.45	0.02	0.07	0.12	0.18
1030	0.24	0.08	0.34	0.02	0.07	0.10	0.18
1130	0.27	0.08	0.36	0.00	0.06	0.08	0.19
1230	0.09	0.08	0.35	0.02	0.05	0.06	0.16
1330	0.08	0.08	0.31	0.02	0.03	0.06	0.16
1430	0.08	0.08	0.31	0.00	0.05	0.10	0.14
1530	0.09	0.06	0.26	0.05	0.03	0.11	0.14
1630	0.09	0.09	0.28	0.09	0.03	0.09	0.13
1730	0.09	0.08	0.26	0.08	0.05	0.09	0.13
1830	0.10	0.09	0.23	0.04	0.05	0.08	0.13
1930	0.14	0.06	0.42	0.00	0.05	0.13	0.29
2030	0.13	0.06	0.61	0.00	0.06	0.16	0.25
2130	0.17	0.08	0.51	0.00	0.07	0.12	0.18
2230	0.17	0.06	0.47	0.00	0.09	0.10	0.22
2330	0.15	0.08	0.38	0.02	0.07	0.06	0.17

December 8, 1966

GROUP I STATIONS

t(EST)	336	337	338	339	340	66-2	66-3
0030	0.17	0.11	0.34	0.00	0.06	0.04	0.08
0130	0.15	0.13	0.25	0.00	0.05	0.06	0.12
0230	0.09	0.16	0.26	0.00	0.03	0.06	0.22
0330	0.08	0.11	0.32	0.00	0.05	0.17	0.27
0430	0.09	0.13	0.36	0.00	0.06	0.16	0.35
0530	0.13	0.19	0.39	0.02	0.15	0.24	0.45
0630	0.14	0.15	0.42	0.02	0.27	0.40	0.47
0730	0.14	0.17	0.39	0.04	0.33	0.40	0.42
0830	0.11	0.11	0.39	0.03	0.35	0.45	0.47
0930	0.08	0.09	0.38	0.03	0.18	0.28	0.64
1030	0.06	0.08	0.28	0.14	0.12	0.31	0.27
1130	0.06	0.04	0.23	0.18	0.09	0.17	0.45
1230	0.06	0.04	0.19	0.13	0.18	0.14	0.19
1330	0.04	0.06	0.28	0.06	0.16	0.16	0.17
1430	0.06	0.14	0.21	0.03	0.18	0.23	0.26
1530	0.06	0.20	0.28	0.05	0.18	0.33	0.22
1630	0.08	0.18	0.31	0.02	0.15	0.40	0.31
1730	0.06	0.14	0.31	0.02	0.20	0.43	0.32
1830	0.06	0.17	0.31	0.05	0.22	0.31	0.39
1930	0.08	0.23	0.26	0.10	0.26	0.34	0.43
2030	0.09	0.24	0.34	0.09	0.27	0.57	0.28
2130	0.16	0.24	0.44	0.10	0.27	0.74	0.35
2230	0.24	0.20	0.54	0.06	0.26	0.59	0.39
2330	0.25	0.16	0.58	0.02	0.18	0.23	0.41

March 8, 1966

GROUP II STATIONS

t (EST)	1	2	3	4	5
0030		.30*			.12*
0130		.30*			.10*
0230		.30*			.10*
0330		.30*			.10*
0430		.40*			.10*
0530		.50*			.10*
0630		.66*			.16*
0730		.60*			.20*
0830		.50*			.20*
0930		.50*			.20*
1030		.50*			.20*
1130		.46*			.20*
1230	.34*	.34*			.20*
1330	.34*	.40*			.20*
1430	.30*	.40*			.20*
1530	.30*	.40*			.20*
1630	.34*	.40*			.16*
1730	.26*	.40*			.16*
1830	.26*	.40*			.16*
1930	.30*	.40*			.16*
2030	.26*	.40*			.16*
2130	.26*	.40*			.10*
2230	.26*	.40*			.10*
2330	.24*	.40*			.10*

March 8, 1966
(continued)

GROUP II STATIONS

t(EST)	6	7	8	9	10
0030	.04	.06*	.10*		.06*
0130	.04	.06*	.10*		.06*
0230	.04	.06*	.10*		.06*
0330	.04	.06*	.10*		.06*
0430	.04	.06*	.10*		.06*
0530	.04	.20*	.10*		.10*
0630	.10	.40*	.20*		.10*
0730	.10	.30*	.20*		.10*
0830	.10	.26*	.10*		.10*
0930	.04	.20*	.06*		.10*
1030	.10	.20*	.06*		.10*
1130	.08	.16*	.06*		.10*
1230	.08	.10*	.06*		.10*
1330	.08		.06*		.10*
1430	.08		.06*		.06*
1530	.10		.06*		.06*
1630	.14		.06*		.06*
1730	.20		.06*		.06*
1830	.20		.10*		.06*
1930	.20		.10*		.06*
2030	.10		.10*		.06*
2130	.10		.10*		.06*
2230	.10		.10*		.06*
2330	.06		.10*		.06*

March 9, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030		.40*			.10*
0130	.20*	.36*			.10*
0230	.20*	.36*			.10*
0330	.20*	.36*			.10*
0430	.30*	.40*			.10*
0530	.30*	.50*			.10*
0630	.60*	1.10*	.16*	.15*	.10*
0730	.66*	1.26*	.22*	.28*	.20*
0830	.90*	1.20*	.12*	.17*	.20*
0930	.86*	1.10*	.11*	.17*	.16*
1030	.74*	.80*	.19*	.29*	.20*
1130	.40*	.46*	.31*	.48*	.40*
1230			.19*	.57*	.34*
1330			.27*	.30*	.34*
1430			.16*		.30*
1530					.26*
1630	.34*				.20*
1730	.28*				.20*
1830	.46*				.16*
1930	.34*				.12*
2030	.46*				.20*
2130	.40*				.20*
2230					.16*
2330	.20*				.16*

March 9, 1966
(continued)
GROUP II STATIONS

t (EST)	6	7	8	9	10
0030	.06		.10*		.06*
0130	.04		.10*		.06*
0230	.10		.10*		.06*
0330	.10		.10*		.06*
0430	.10		.10*		.10*
0530	.14		.10*		.16*
0630	.14		.26*		.16*
0730	.14		.26*		.16*
0830	.10		.16*		.16*
0930	.10		.16*		.10*
1030	.10		.20*		.10*
1130	.14		.10*		.16*
1230	.06		.10*		.26*
1330	.02		.10*		.26*
1430	.02		.10*		.30*
1530	.06		.10*		.20*
1630	.06		.10*		.16*
1730	.00		.10*		.10*
1830	.00		.26*		.10*
1930	.26		.30*		.06*
2030	.32		.30*		.06*
2130	.46		.50*		.10*
2230	.46		.70*		.10*
2330	.52		.60*		.16*

March 10, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030	.34*				.20*
0130	.30*				.20*
0230	.30*				.20*
0330	.30*				.30*
0430	.34*				.30*
0530	.60*				.40*
0630	.70*		.32*	.53*	.46*
0730	.90*		.32*	.60*	.50*
0830	.90*		.38*	.54*	.40*
0930	.90*		.33*	.42*	.30*
1030	.70*		.37*	.42*	.30*
1130	.50*		.42*	.30*	.26*
1230	.40*		.28*	.09*	.20*
1330	.30*		.26*	.03*	.16*
1430	.26*		.21*		.16*
1530	.20*				.10*
1630	.26*				.10*
1730	.26*			.03*	.16*
1830	.26*				.20*
1930	.30*			.10*	.20*
2030	.40*				.26*
2130	.40*				.30*
2230	.30*				.30*
2330	.30*				.26*

March 10, 1966
(continued)
GROUP II STATIONS

t(EST)	6	7	8	9	10
0030	.46		.50*		.20*
0130	.52		.46*		.30*
0230	.46		.30*		.30*
0330	.76		.40*		.30*
0430	.72		.50*		.34*
0530	.92		.80*		.40*
0630	1.06		1.00*		.60*
0730	.96		1.00*		.40*
0830	1.06		.80*		.46*
0930	.36		.70*		.46*
1030	.56		.60*		.50*
1130	.36		.30*		.26*
1230	.22	.26*	.16*		.20*
1330	.04	.16*	.10*		.70*
1430	.06	.16*	.10*		.10*
1530	.06	.20*	.10*		.06*
1630	.10	.26*	.10*		.06*
1730	.16	.34*	.16*		.06*
1830	.40	.40*	.34*		.10*
1930	.40	.70*	.46*		.20*
2030	.44	.86*	.46*		.20*
2130	.30	1.10*	.50*		.30*
2230	.24	.80*	.50*		.20*
2330	.30	.54*	.46*		.20*

March 11, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030	.30*				.16*
0130	.30*				.16*
0230	.34*				.20*
0330	.40*				.20*
0430	.30*				.26*
0530	.30*				.34*
0630	1.00*		.60*		.54*
0730	.80*		.74*		.66*
0830	.60*		.69*		.80*
0930	1.00*		.51*		.60*
1030	1.00*		.42*		.34*
1130	.80*		.27*	.10*	.20*
1230	.60*		.18*		.26*
1330	.60*		.33*		.26*
1430	.50*				.26*
1530	.54*				.26*
1630	.70*				.30*
1730	.54*				.26*
1830	.60*				.20*
1930	.50*				.16*
2030	.40*				.16*
2130	.30*				.16*
2230	.30*				.16*
2330	.30*				.10*

March 11, 1966
(continued)
GROUP II STATIONS

t(EST)	6	7	8	9	10
0030	.30	.50*	.46*		.16*
0130	.24	.54*	.50*		.16*
0230	.24	.40*	.50*		.20*
0330	.44	.40*	.30*		.26*
0430	.80	.46*	.40*		.26*
0530	.44	.80*	.60*		.40*
0630	.50	.90*	.70*		.50*
0730	.50	.80*	.60*		.50*
0830	.50	.66*	.34*		.50*
0930	.70	.66*	.36*		.16*
1030	.36	.70*	.16*		.16*
1130	.40	.36*	.16*		.16*
1230	.33	.26*			.16*
1330	.36	.40*			.16*
1430		.30*			.16*
1530	.40	.30*			.20*
1630	.24	.34*			.16*
1730	.40	.30*			.16*
1830	.44	.34*			.10*
1930	.40	.30*			.10*
2030	.30	.30*			.10*
2130	.30	.30*			.06*
2230	.40	.26*			.06*
2330	.30	.20*			.06*

March 12, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030	.30*				.10*
0130	.30*				.10*
0230	.20*				.10*
0330	.20*				.10*
0430	.20*				.10*
0530	.20*				.10*
0630	.20*		.04*	.08*	.10*
0730	.16*		.03*	.08*	.10*
0830	.16*		.04*	.06*	.10*
0930	.16*		.05*	.06*	.10*
1030	.16*		.06*	.05*	.10*
1130	.16*		.07*		.10*
1230	.16*		.06*		.10*
1330	.16*				.06*
1430	.16*				.06*
1530	.16*				.06*
1630	.16*				.06*
1730	.16*				.06*
1830	.60*				.06*
1930	.30*				.06*
2030	.30*				.06*
2130	.60*				.06*
2230	.30*				.06*
2330	.30*				.06*

March 12, 1966
(continued)
GROUP II STATIONS

t(EST)	6	7	8	9	10
0030	.20	.20*			.06*
0130	.20	.16*			.06*
0230	.16	.16*			.06*
0330	.16	.16*			.06*
0430	.16	.20*			.06*
0530	.30	.26*			.06*
0630	.30	.30*			.10*
0730	.06	.20*			.06*
0830	.16	.20*			.06*
0930	.10	.20*			.06*
1030	.16	.16*			.06*
1130	.06	.20*			.06*
1230	.08	.16*			.06*
1330	.24	.10*			.06*
1430	.10	.16*	.06*		.06*
1530	.10	.10*			.06*
1630	.14	.10*			.06*
1730	.14	.16*			.06*
1830	.10	.10*			.06*
1930	.20	.10*			.06*
2030	.20	.10*			.06*
2130	.20	.10*			.06*
2230	.14	.10*			.06*
2330	.14	.10*			.06*

November 15, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030		.03			.10
0130		.03			.08
0230		.07			.08
0330		.03			.08
0430		.04			.08
0530		.12			.13
0630		.15			.23
0730		.21			.26
0830		.17			.22
0930		.12			.18
1030		.11			.10
1130		.07			.15
1230		.08			.10
1330		.11			.10
1430		.10			.10
1530		.12			.15
1630		.08			.18
1730		.06			.18
1830		.12			.20
1930		.10			.13
2030		.12			.10
2130		.10			.04
2230		.10			.05
2330		.10			.02

November 15, 1966

(continued)

GROUP II STATIONS

t(EST)	6	7	8	9	10
0030	.04	.10	.02	.10	.11
0130	.04	.04	.00	.01	.01
0230	.02	.04	.00	.01	.03
0330	.02	.04	.00	.01	.03
0430	.02	.04	.02	.01	.05
0530	.02	.08	.02	.01	.11
0630	.06	.20	.12	.09	.15
0730	.06	.22	.12	.09	.13
0830	.04	.18	.04	.09	.13
0930	.06	.12	.02	.03	.07
1030	.06	.12	.00	.01	.05
1130	.06	.06	.00	.01	.07
1230	.02	.06	.00	.01	.07
1330	.00	.08	.02	.02	.05
1430	.00	.10	.02	.02	.05
1530	.02	.10	.02	.02	.05
1630	.02	.10	.04	.02	.07
1730	.02	.12	.08	.04	.11
1830	.02	.12	.08	.06	.11
1930	.04	.12	.10	.04	.11
2030	.06	.16	.04	.04	.11
2130	.04	.20	.06	.04	.07
2230	.09	.14	.04	.02	.05
2330	.07	.07	.02	.02	.03

November 16, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030					
0130					
0230					
0330					
0430		- NO DATA -			
0530					
0630					
0730					
0830					
0930					
1030					
1130					
1230					
1330					
1430					
1530					
1630					
1730					
1830					
1930					
2030					
2130					
2230					
2330					

November 16, 1966
(continued)
GROUP II STATIONS

t(EST)	6	7	8	9	10
0030					
0130					
0230					
0330					
0430		- NO DATA -			
0530					
0630					
0730					
0830					
0930					
1030					
1130					
1230					
1330					
1430					
1530					
1630					
1730					
1830					
1930					
2030					
2130					
2230					
2330					

November 17, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030		.34			.08
0130		.44			.08
0230		.44			.06
0330		.25			.05
0430		.30			.07
0530		.32			.14
0630		.36			.18
0730		.48			.24
0830		.46			.28
0930		.38			.34
1030		.32			.34
1130					
1230					.14
1330		.38			.10
1430		.26			.06
1530		.22			.04
1630		.25			.08
1730		.25			.18
1830		.36			.18
1930		.35			.24
2030		.24			.18
2130		.38			.12
2230		.38			.20
2330		.40			.16

November 17, 1966

(continued)

GROUP II STATIONS

t(EST)	6	7	8	9	10
0030	.34	.50	.40	.18	.30
0130	.40	.52	.50	.20	.20
0230	.40	.46	.52	.24	.20
0330	.38	.42	.50	.20	.22
0430	.42	.40	.58	.18	.22
0530	.48	.54	.42	.26	.22
0630	.44	.54	.80	.26	.26
0730	.50	.52	.60	.30	.28
0830	.50	.65	.76	.34	.36
0930	.55	.60	.80	.36	.50
1030	.40	.50	.80	.34	.42
1130					
1230	.40	.60	.58	.32	.25
1330	.40	.44	.68	.20	.24
1430	.40	.44	.40	.18	.24
1530	.36	.44	.26	.20	.24
1630	.30	.40	.30	.20	.22
1730	.34	.40	.40	.24	.24
1830	.46	.56	.60	.32	.24
1930	.44	.50	.56	.35	.24
2030	.40	.54	.54	.30	.36
2130	.42	.66	.60	.30	.24
2230	.46	.54	.68	.32	.24
2330	.56	.54	.60	.20	.25

December 6, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030					
0130					
0230					
0330					
0430					
0530					
0630		.23			.29
0730		.28			.43
0830		.36			.39
0930		.56			.41
1030		.48			.27
1130					.27
1230					.22
1330					
1430					.08
1530					.12
1630					.12
1730					.10
1830					.16
1930					.12
2030					.12
2130					.10
2230					
2330					.08

December 6, 1966
(continued)
GROUP II STATIONS

t(EST)	6	7	8	9	10
0030					
0130					
0230					
0330					
0430					
0530					
0630	.06	.26	.20	.18	.25
0730	.09	.24	.16	.22	.24
0830	.10	.20	.16	.24	.22
0930	.10	.14	.16	.18	.20
1030	.08	.19	.10	.10	.10
1130	.04	.28	.12	.22	.08
1230	.05	.17	.14	.09	.08
1330					
1430	.05	.26	.06	.05	.05
1530	.19	.14	.06	.05	.05
1630	.16	.15	.06	.17	.05
1730	.21	.16	.06	.15	.10
1830	.23	.14	.06	.17	.08
1930	.25	.14	.08	.23	.12
2030	.19	.20	.08	.13	.08
2130	.15	.12	.10	.17	.08
2230					
2330	.21	.06	.14	.13	.10

December 7, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030					
0130					.08
0230					
0330					.08
0430					
0530					.17
0630					.20
0730					.12
0830					.08
0930					.12
1030					.10
1130					.06
1230		.09			.06
1330					
1430		.23			.06
1530		.23			.06
1630		.19			.06
1730		.19			.08
1830		.28			.08
1930		.23			.06
2030		.15			.10
2130		.13			.10
2230					
2330		.29			.08

December 7, 1966
(continued)
GROUP II STATIONS

t(EST)	6	7	8	9	10
0030					
0130	.15	.08	.06	.11	.06
0230					
0330	.11	.12	.08	.09	.04
0430					
0530	.28	.18	.09	.19	.08
0630	.35	.24	.12	.11	.14
0730	.25	.35	.16	.25	.10
0830	.25	.18	.24	.15	.04
0930	.25	.13	.22	.13	.04
1030	.25	.20	.22	.11	.02
1130	.20	.16	.09	.05	.02
1230	.20	.12	.06	.08	.02
1330					
1430	.21	.08	.06	.04	.02
1530	.27	.18	.06	.09	.04
1630	.27	.10	.06	.08	.04
1730	.17	.10	.06	.10	.02
1830	.20	.12	.06	.08	.00
1930	.20	.16	.06	.08	.02
2030	.15	.33	.08	.06	.02
2130	.09	.40	.14	.10	.02
2230					
2330	.05	.27	.14	.04	.04

December 8, 1966

GROUP II STATIONS

t(EST)	1	2	3	4	5
0030					
0130		.05			.04
0230					
0330		.13			.06
0430					
0530		.31			.32
0630		.29			.36
0730		.39			.42
0830		.35			.40
0930		.35			.40
1030		.33			.36
1130		.19			.16
1230		.10			.18
1330					
1430		.09			.13
1530		.31			.16
1630		.31			.16
1730		.43			.14
1830		.35			.18
1930		.25			.24
2030		.30			.16
2130		.35			.18
2230					
2330		.29			.06

December 8, 1966
(continued)
GROUP II STATIONS

t(EST)	6	7	8	9	10
0030					
0130	.05	.12	.10	.04	.02
0230					
0330	.19	.20	.10	.04	.02
0430					
0530	.37	.44	.16	.14	.02
0630	.37	.54	.34	.24	.06
0730	.41	.69	.56	.34	.08
0830	.33	.54	.60	.34	.16
0930	.39	.25	.54	.39	.20
1030	.19	.24	.28	.24	.15
1130	.21	.22	.18	.26	.12
1230	.11	.18	.18	.18	.12
1330					
1430	.26	.22	.26	.20	.10
1530	.16	.18	.28	.16	.16
1630	.22	.26	.28	.16	.14
1730	.24	.28	.26	.20	.12
1830	.16	.18	.44	.26	.12
1930	.20	.28	.40	.30	.14
2030	.16	.45	.46	.34	.12
2130	.20	.42	.55	.50	.16
2230					
2330	.26	.54	.48	.14	.10

March 8, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030	.09	.10	.11		.16
0130					
0230	.08	.06	.14		.12
0330					
0430	.08	.08	.15	.08	
0530					
0630	.09	.10	.29	.24	.22
0730					
0830	.08	.10	.24	.27	.20
0930					
1030	.07	.08	.17	.31	.20
1130					
1230	.07		.12	.18	.16
1330					
1430	.08	.12	.10	.27	.18
1530	.08	.12	.15		
1630	.07	.12	.17	.25	.18
1730	.07	.16	.27		.20
1830	.10	.18	.26	.31	.18
1930					
2030	.12	.10	.19	.24	.22
2130					
2230	.11		.20	.21	
2330					

March 8, 1966

(continued)

GROUP III STATIONS

t(EST)	6	7	8	9	10
0030			.03	.00	.08
0130					
0230		.14	.04	.00	.12
0330					
0430		.42	.08	.00	.22
0530					
0630		.24	.03	.01	.36
0730					
0830		.20	.09	.01	.28
0930					
1030		.20	.09	.02	.24
1130					
1230		.16	.07	.03	.24
1330					
1430		.18	.07	.03	.20
1530		.18			.18
1630		.18	.09	.02	.18
1730		.24			.24
1830		.26	.16	.02	.26
1930					
2030		.20	.13	.02	.28
2130					
2230		.18	.10	.02	.22
2330					

March 8, 1966
(continued)
GROUP III STATIONS

t(EST)	11	12	13	14	15
0030		.05			.01
0130					
0230		.06	.06		.01
0330					
0430		.10	.08		.02
0530					
0630		.14	.15		.16
0730					
0830		.00	.17		.10
0930					
1030		.10	.10		.06
1130					
1230		.06	.20		.06
1330					
1430		.06	.11		.06
1530		.14			.05
1630		.10	.09		.07
1730		.14			.07
1830		.09	.12		.14
1930					
2030		.10	.16		.12
2130					
2230		.00	.05		.10
2330					

March 9, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030	.09	.12	.16	.11	.24
0130					
0230	.13	.14	.23	.10	.18
0330					
0430	.15		.63	.07	.16
0530					
0630	.14	.18	.52	.21	.34
0730	.14	.22	.50		.42
0830	.24	.22	.47	.19	.44
0930	.29	.26	.30		.42
1030	.31	.26	.23	.24	.52
1130	.18	.22	.20		.34
1230	.12	.20	.19	.17	.26
1330					
1430	.09	.24	.16	.13	.20
1530					
1630	.11	.16	.24	.17	.22
1730	.10	.14	.21		.20
1830	.09	.18	.21	.19	.34
1930	.09	.16	.22		.32
2030	.10	.16	.16	.14	.34
2130					
2230	.11	.20	.26	.20	.36
2330					

March 9, 1966

(continued)

GROUP III STATIONS

t(EST)	6	7	8	9	10
0030		.20	.07	.01	.12
0130					
0230		.16	.07	.00	.10
0330					
0430		.34	.11	.01	.12
0530					
0630	.14	.48	.25	.02	.42
0730		.48			.32
0830	.01	.40	.12	.01	.40
0930					.40
1030	.13		.25	.03	.32
1130		.28			.18
1230	.07	.30	.16	.07	.10
1330					
1430	.03	.38	.17	.06	.14
1530					
1630	.06	.26	.08	.03	.14
1730		.22			.24
1830	.06	.32	.23	.12	.22
1930		.38			.26
2030	.12	.34	.29	.12	.36
2130					
2230	.15	.32	.29	.13	.58
2330					

March 9, 1966

(continued)

GROUP III STATIONS

t(EST)	11	12	13	14	15
0030		.10	.08		.05
0130					
0230		.08	.06		.05
0330					
0430		.10	.08		.10
0530					
0630		.28	.07		.32
0730		.24			.34
0830		.26	.10		.36
0930		.18			.34
1030		.12	.08		.16
1130		.10			.10
1230		.08	.04		.07
1330					
1430		.10	.19		.06
1530					
1630		.08	.12		.06
1730		.08			.10
1830		.28	.03		.18
1930		.72			.21
2030		.54	.10		.46
2130					
2230		.50	.14		.46
2330					

March 10, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030	.19	.32	.33	.21	.28
0130					
0230	.20	.30	.41	.26	.28
0330					
0430	.19	.20	.45	.21	.38
0530					
0630	.23		.49	.27	.44
0730	.26		.45		.52
0830	.19	.38	.21	.19	.52
0930	.11	.28	.40		.54
1030	.12	.20	.21	.12	.50
1130					
1230	.10	.16	.14	.13	.28
1330					
1430	.09	.10	.13	.18	.14
1530					
1630	.10	.10	.13	.29	.16
1730	.08	.12	.10		.14
1830	.17	.14	.13		.14
1930	.12	.20	.24		.22
2030	.18	.28	.27	.13	.26
2130					
2230	.21	.32	.32	.08	.28
2330					

March 10, 1966
(continued)
GROUP III STATIONS

t(EST)	6	7	8	9	10
0030	.11	.24	.20	.20	.42
0130					
0230	.08	.36	.21	.13	.28
0330					
0430	.13	.24	.28	.15	.34
0530					
0630	.31	.40	.34	.06	.76
0730		.44			.54
0830	.28	.50	.35	.18	.42
0930		.40			.44
1030	.21	.44	.23	.25	.28
1130					
1230	.14	.28	.19	.14	.16
1330					
1430	.07	.18	.14	.08	.16
1530					
1630	.08	.20	.14	.09	.22
1730		.26			.32
1830	.10	.22	.18	.13	.32
1930		.26			.54
2030	.15	.30	.30	.17	.56
2130					
2230	.08	.22	.21	.11	.42
2330					

March 10, 1966
(continued)
GROUP III STATIONS

t(EST)	11	12	13	14	15
0030		.32	.16		.38
0130					
0230		.26	.26		.16
0330					
0430		.32	.28		.24
0530					
0630			.36		.53
0730		.48			.45
0830		.60	.40		.38
0930		.34			.35
1030		.30	.36		.25
1130					
1230		.18	.21		.10
1330					
1430		.12	.18		.08
1530					
1630		.10	.07		.10
1730		.16			.16
1830		.28	.18		.26
1930		.28			.34
2030		.32	.23		.44
2130					
2230		.18	.23		.42
2330					

March 11, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030	.20	.24	.28	.01	.20
0130					
0230	.23	.28	.19	.11	.20
0330					
0430	.15		.39	.08	.32
0530					
0630	.21		.41	.08	.62
0730	.40	.32	.48		.62
0830	.22	.42	.45	.05	.54
0930	.23	.50	.29		.32
1030	.20	.64	.28	.00	.26
1130	.23	.50	.29		.28
1230	.26	.42	.26	.04	.26
1330	.18	.44	.28		.24
1430	.16	.38	.28	.18	.36
1530	.12	.28	.35		.34
1630	.16	.34	.29	.32	.30
1730					
1830	.17	.38	.16	.10	.18
1930					
2030	.11	.32	.18	.09	.24
2130					
2230	.09	.32	.11	.05	.22
2330					

March 11, 1966
(continued)
GROUP III STATIONS

t(EST)	6	7	8	9	10
0030	.08	.42	.10	.10	.40
0130					
0230	.10	.24	.28	.01	.26
0330					
0430	.14	.54	.17	.12	.38
0530					
0630	.07	.60	.24	.16	.52
0730		.54			.54
0830	.08	.60	.23	.08	.32
0930					.30
1030	.14	.38	.13	.03	.16
1130		.26			.20
1230	.11	.24	.06	.03	
1330		.28			
1430	.10	.36	.10	.08	
1530		.34			
1630	.08	.22	.07	.03	
1730					
1830	.10	.20	.07	.02	
1930					
2030	.08	.20	.06	.02	
2130					
2230	.04	.20	.05	.01	
2330					

March 11, 1966
(continued)
GROUP III STATIONS

t(EST)	11	12	13	14	15
0030		.20	.21		.31
0130					
0230		.24	.20		.10
0330					
0430		.26	.22		.20
0530					
0630		.34	.36		.46
0730		.64			.46
0830		.34	.32		.47
0930		.54			.19
1030		.30	.01		.23
1130		.20			.19
1230		.24	.11		.11
1330		.30			.18
1430		.26	.10		.21
1530		.24			.12
1630		.38	.14		.08
1730					
1830		.38	.13		.18
1930					
2030		.24	.01		.16
2130					
2230		.20	.11		.06
2330					

March 12, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030	.08	.32	.11	.12	.22
0130					
0230	.09	.22	.08	.00	.18
0330					
0430	.08		.11	.11	.20
0530					
0630	.08		.13	.08	.20
0730					
0830	.07	.18	.09	.30	.20
0930					
1030		.14		.30	.18
1130					
1230		.16		.18	
1330					
1430				.17	
1530					
1630				.13	
1730					
1830				.11	
1930					
2030				.12	
2130					
2230				.11	
2330					

March 12, 1966
(continued)
GROUP III STATIONS

t(EST)	6	7	8	9	10
0030	.07	.18	.04	.01	
0130					
0230	.06	.20	.05	.01	
0330					
0430	.05	.20	.05	.01	
0530					
0630	.03	.18	.14	.01	
0730					
0830	.04	.14	.13	.01	
0930					
1030	.03		.14	.01	
1130					
1230	.04		.10	.01	
1330					
1430	.03		.01	.01	
1530					
1630	.03		.06	.01	
1730					
1830	.02		.07	.02	
1930					
2030	.03		.03	.03	
2130					
2230			.02	.02	
2330					

March 12, 1966
(continued)
GROUP III STATIONS

t(EST)	11	12	13	14	15
0030		.06	.05		.05
0130					
0230		.08	.09		.06
0330					
0430		.16	.09		.07
0530					
0630		.28	.17		.11
0730					
0830		.30	.16		.11
0930					
1030		.14	.15		.12
1130					
1230		.12	.12		.07
1330					
1430			.13		.09
1530					
1630			.11		.06
1730					
1830			.10		.07
1930					
2030			.09		.06
2130					
2230			.08		.02
2330					

November 15, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030	.14	.08	.09		
0130	.14	.07	.08		
0230	.14	.05	.08		
0330	.12	.06	.10		
0430	.08	.06	.12		
0530	.07	.07	.13		
0630	.08	.06	.15		
0730	.10	.07	.14		
0830	.13	.05	.11		
0930	.07	.06	.12		
1030	.08	.06	.12		
1130	.10	.06	.10		
1230	.08	.05	.11		.15
1330	.08	.05	.10		.13
1430	.06	.06	.11		.49
1530		.06	.11		.15
1630		.05	.10		.16
1730		.04	.10		.19
1830		.05	.14		.15
1930		.04	.15		.14
2030		.19	.16		.19
2130		.12	.17		.20
2230		.14	.14		.26
2330		.21	.17		.18

November 15, 1966
(continued)
GROUP III STATIONS

t(EST)	6	7	8	9	10
0030		.12			.08
0130		.08			.07
0230		.09			.05
0330		.10			.06
0430		.11			.10
0530		.13			.13
0630		.17			.15
0730		.23			.15
0830		.14			.16
0930		.18			.13
1030					.12
1130		.10			.10
1230		.12			.10
1330		.13			.10
1430		.11			.10
1530		.13			.12
1630		.11			.11
1730		.17			.11
1830		.15			.17
1930		.14			.17
2030		.15			.16
2130		.21			.15
2230		.18			.11
2330		.13			.09

November 15, 1966
(continued)

GROUP III STATIONS

t(EST)	11	12	13	14	15
0030					.10
0130					.06
0230					.03
0330					.04
0430					.11
0530					.11
0630					.12
0730					.25
0830					.14
0930					.12
1030					.13
1130					.11
1230					.10
1330					.12
1430					.12
1530					.12
1630					.17
1730					.16
1830					.13
1930					.18
2030					.20
2130					.18
2230					.12
2330					.08

November 16, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030					
0130					
0230					
0330					
0430		-NO DATA-			
0530					
0630					
0730					
0830					
0930					
1030					
1130					
1230					
1330					
1430					
1530					
1630					
1730					
1830					
1930					
2030					
2130					
2230					
2330					

November 16, 1966
(continued)
GROUP III STATIONS

t(EST)	6	7	8	9	10
0030					
0130					
0230					
0330					
0430		-NO DATA-			
0530					
0630					
0730					
0830					
0930					
1030					
1130					
1230					
1330					
1430					
1530					
1630					
1730					
1830					
1930					
2030					
2130					
2230					
2330					

November 16, 1966
(continued)

GROUP III STATIONS

t(EST)	11	12	13	14	15
0030					
0130					
0230					
0330					
0430		-NO DATA-			
0530					
0630					
0730					
0830					
0930					
1030					
1130					
1230					
1330					
1430					
1530					
1630					
1730					
1830					
1930					
2030					
2130					
2230					
2330					

November 17, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030	.07	.15	.17		
0130	.09	.28			
0230	.10	.24			
0330	.10	.15			
0430	.07	.14			
0530	.07	.09			
0630	.07	.09			
0730	.14	.16			
0830	.22	.21			
0930	.21	.22			
1030	.32	.21			
1130					
1230	.24	.31			.40
1330	.19	.23			.32
1430	.15	.13			.27
1530	.10	.11			.20
1630	.09	.06			.20
1730	.08	.07			.20
1830	.10	.15			.25
1930	.10	.26			.30
2030	.10	.30			.35
2130	.11	.27			.29
2230	.18	.25			.28
2330	.19	.27			.25

November 17, 1966
(continued)
GROUP III STATIONS

t(EST)	6	7	8	9	10
0030		.23			.21
0130		.27			.29
0230		.27			.26
0330		.23			.30
0430		.27			.27
0530		.27			.30
0630		.35			.33
0730		.37			.36
0830		.32			.48
0930		.32			.41
1030					.36
1130					
1230		.33			.23
1330		.31			.34
1430		.31			.24
1530		.25			.12
1630		.22			.18
1730		.20			.21
1830		.19			.27
1930		.30			.21
2030		.30			.21
2130		.30			.29
2230		.29			.25
2330		.27			.32

November 17, 1966
(continued)
GROUP III STATIONS

t(EST)	11	12	13	14	15
0030					.30
0130					.39
0230					.31
0330					.32
0430					.35
0530					.45
0630					.45
0730					.51
0830					.53
0930					.53
1030					.42
1130					
1230					.29
1330					.32
1430					.28
1530					.26
1630					.28
1730					.30
1830					.40
1930					.30
2030					.30
2130					.42
2230					.36
2330					.40

December 6, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030					
0130					
0230					
0330					
0430					
0530					
0630		.14			
0730		.14			
0830		.09			
0930	.12	.13			
1030		.11			
1130	.14	.25			.08
1230	.30	.19			.10
1330					
1430	.31	.06			.04
1530	.28	.17			.05
1630	.28	.16			.04
1730	.24	.16			.04
1830	.21	.14			.08
1930	.14	.10			.09
2030	.15	.12			.03
2130	.14	.11			.07
2230					
2330	.10	.15			.05

December 6, 1966
(continued)
GROUP III STATIONS

t(EST)	6	7	8	9	10
0030					
0130					
0230					
0330					
0430					
0530					
0630		.40			.14
0730					.17
0830					.25
0930					.31
1030					.27
1130					.24
1230					.28
1330					
1430					.09
1530					.13
1630					.22
1730					.24
1830					.25
1930					.17
2030					.18
2130					.10
2230					
2330					.06

December 6, 1966

(continued)

GROUP III STATIONS

t(EST)	11	12	13	14	15
0030					
0130					
0230					
0330					
0430					
0530					
0630		.22			.34
0730		.23			.25
0830		.23			.23
0930		.19			.18
1030					.19
1130		.12			.24
1230		.20			.37
1330					
1430		.21			.24
1530		.23			.09
1630		.21			.22
1730		.38			.24
1830		.33			.25
1930		.26			.17
2030		.27			.18
2130		.25			.10
2230					
2330		.16			.06

December 7, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030					
0130	.10	.10			.01
0230					
0330	.09	.06			.09
0430					
0530	.08	.06			
0630	.09	.14			
0730	.08	.05			
0830	.07	.02			
0930	.11	.04			
1030	.08	.01			
1130	.07	.01			.21
1230	.06	.08			.19
1330					
1430		.10			.23
1530		.09			.12
1630	.10	.08			.07
1730	.07	.10			.08
1830		.18			.07
1930	.06	.11			.06
2030	.06	.09			.24
2130		.04			.18
2230					
2330		.01			.10

December 7, 1966
(continued)
GROUP III STATIONS

t(EST)	6	7	8	9	10
0030					
0130					.06
0230					
0330					.11
0430					
0530					.14
0630					.15
0730					.20
0830					.18
0930					.19
1030					.04
1130		.43			.10
1230		.35			.05
1330					
1430		.62			.05
1530		.48			.03
1630		.51			.02
1730		.28			.00
1830		.30			.00
1930		.14			.08
2030		.11			.10
2130		.15			
2230					
2330		.29			.12

December 7, 1966

(continued)

GROUP III STATIONS

t(EST)	11	12	13	14	15
0030					
0130		.19			.08
0230					
0330	.36	.37			.07
0430					
0530		.68			.09
0630	.55	.61			.16
0730		.55			.26
0830		.50			.33
0930					.21
1030					.21
1130		.45			.24
1230		.50			.21
1330					
1430		.45			.16
1530		.40			.18
1630		.43			.18
1730		.39			.14
1830		.63			.15
1930		1.00			.21
2030		.58			.32
2130		.47			.40
2230					
2330		.40			.25

December 8, 1966

GROUP III STATIONS

t(EST)	1	2	3	4	5
0030					
0130		.00	.15		.07
0230					
0330		.19	.02		.23
0430					
0530		.24	.05		.14
0630		.27	.14		.21
0730		.33	.15		.28
0830		.21	.24		.39
0930	.19	.20	.30		
1030	.15	.24	.33		
1130	.14	.24	.30		.26
1230	.12	.24			.22
1330					
1430	.20	.24			.14
1530	.26	.36			.17
1630	.22	.30			.21
1730	.29	.27			.25
1830	.19	.34			.23
1930	.15	.41			.20
2030	.14	.41			.24
2130	.18	.36			.37
2230					
2330	.10	.20			.45

December 8, 1966
(continued)
GROUP III STATIONS

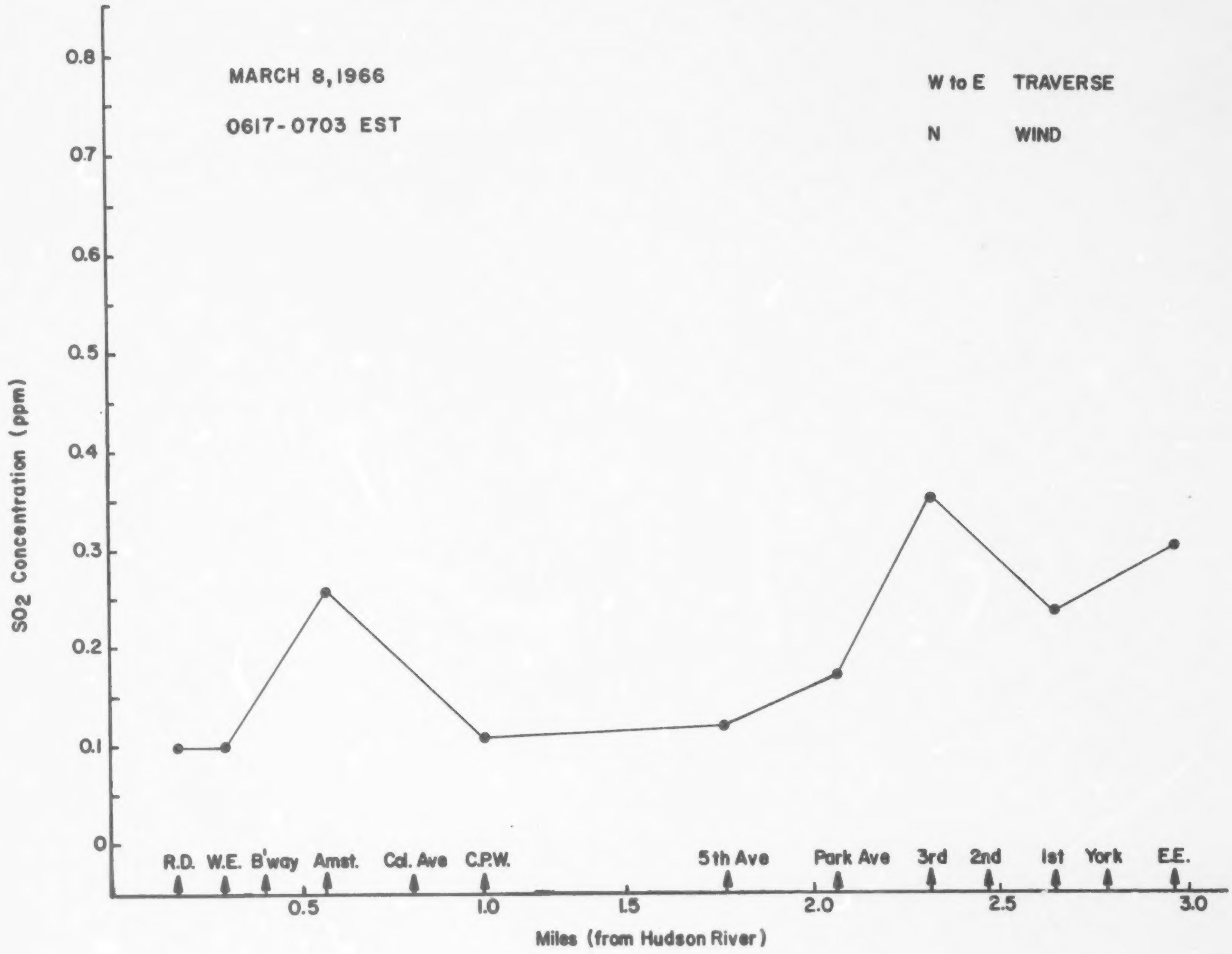
t(EST)	6	7	8	9	10
0030					
0130		.36			.06
0230					
0330		.20			.25
0430					
0530		.20			.33
0630		.23			.35
0730		.24			
0830		.29			
0930		.25			
1030		.24			.28
1130					.25
1230					.47
1330					
1430					.01
1530					
1630					
1730					
1830					
1930					
2030					
2130					
2230					
2330					

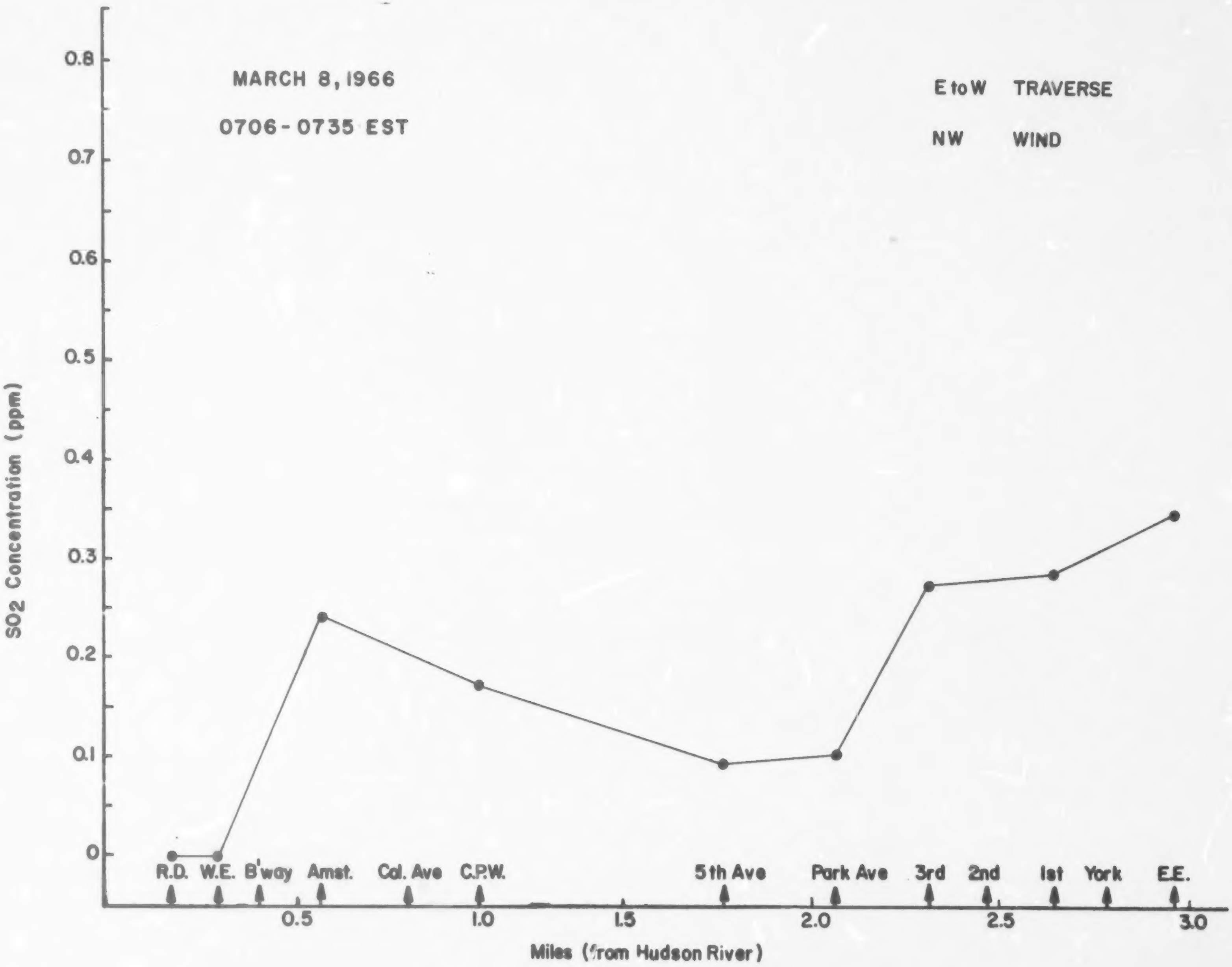
December 8, 1966
(continued)
GROUP III STATIONS

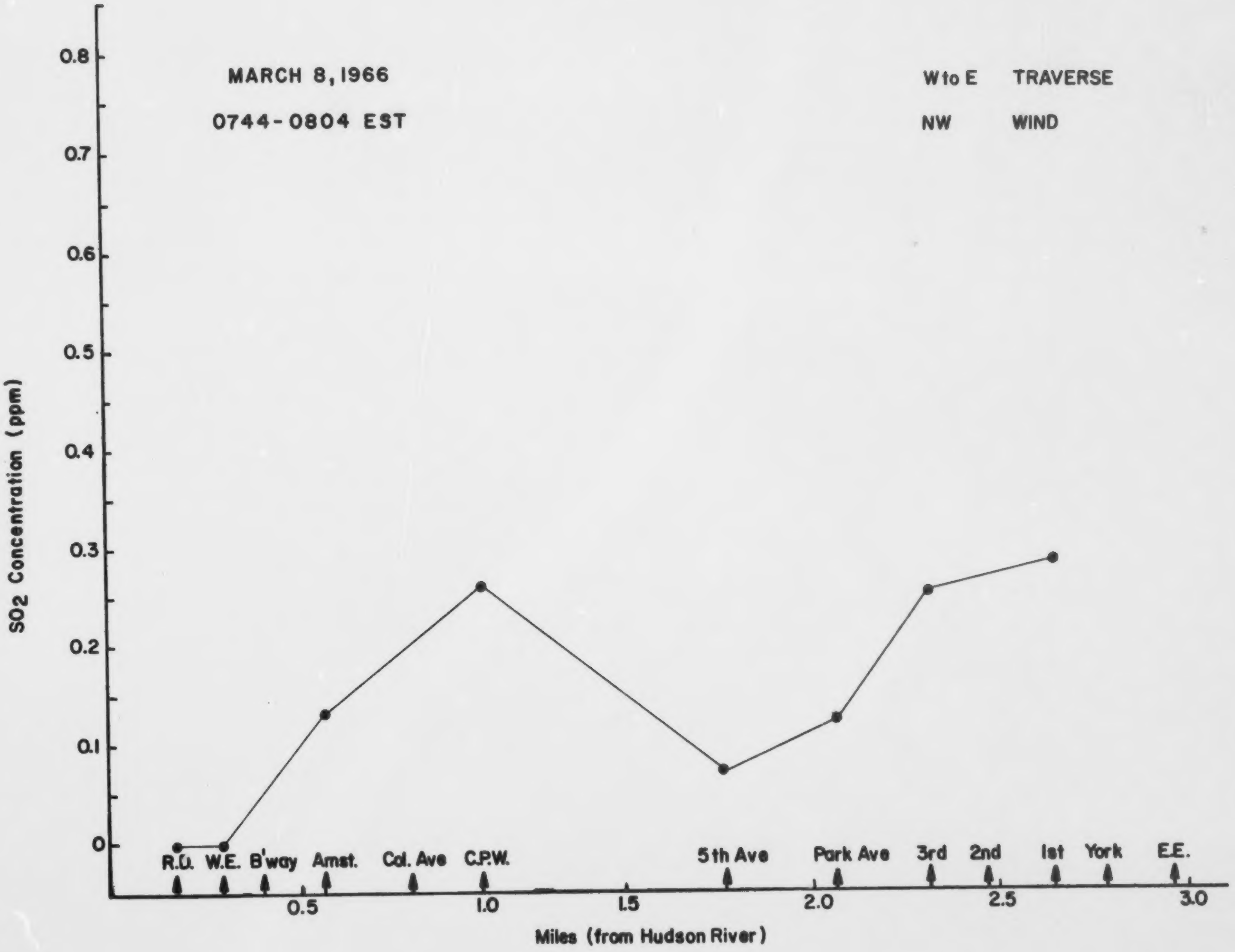
t(EST)	11	12	13	14	15
0030					
0130		.29			.15
0230					
0330		.43			.23
0430					
0530		.46			.42
0630		.45			.55
0730		.43			.59
0830		.32			.48
0930					.34
1030		.21			.24
1130		.29			.38
1230		.36			.42
1330					
1430		.34			.38
1530		.34			.27
1630		.34			.30
1730		.31			.38
1830		.29			.39
1930		.39			.42
2030		.62			.53
2130		.62			.55
2230					
2330		.75			.62

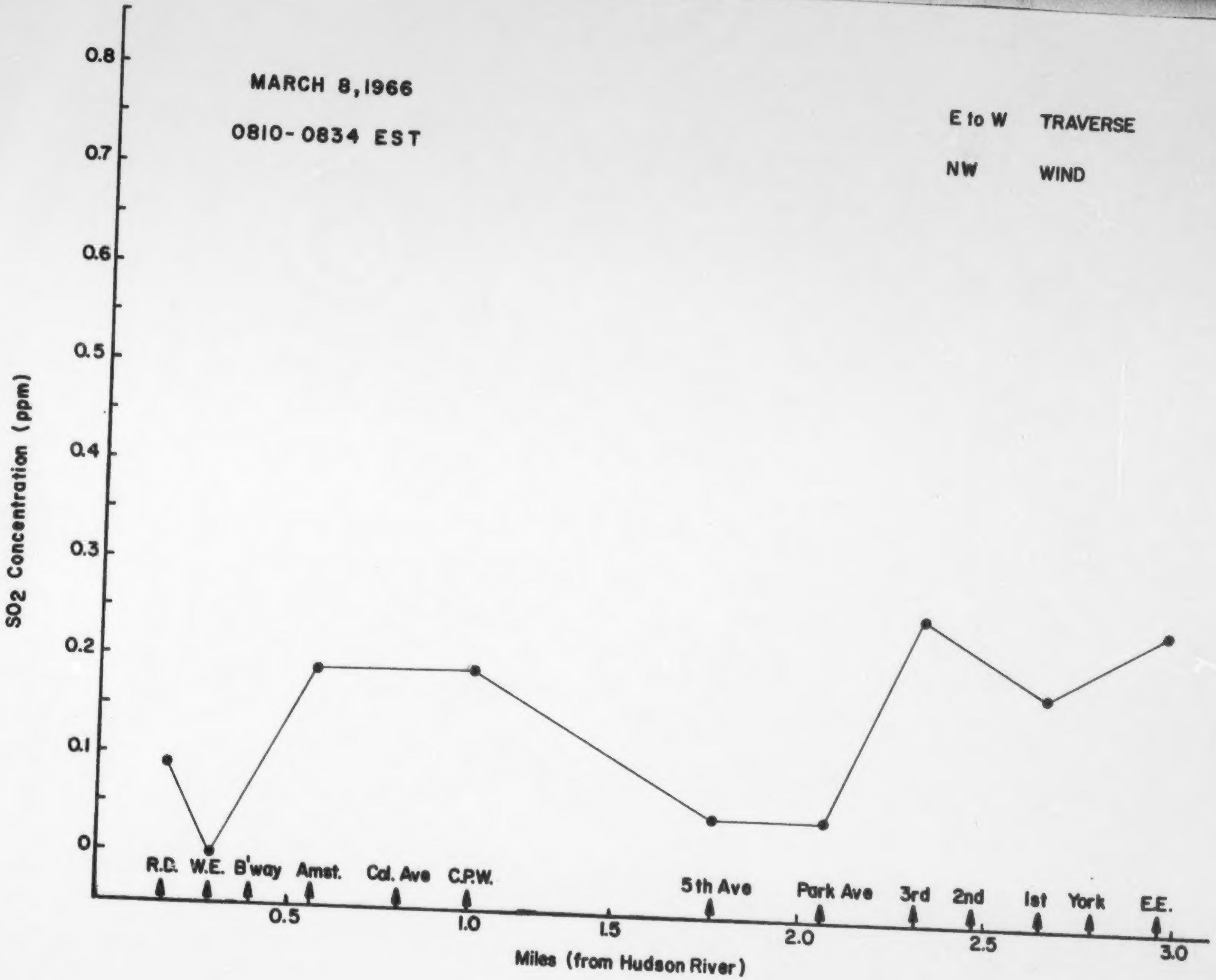
APPENDIX II

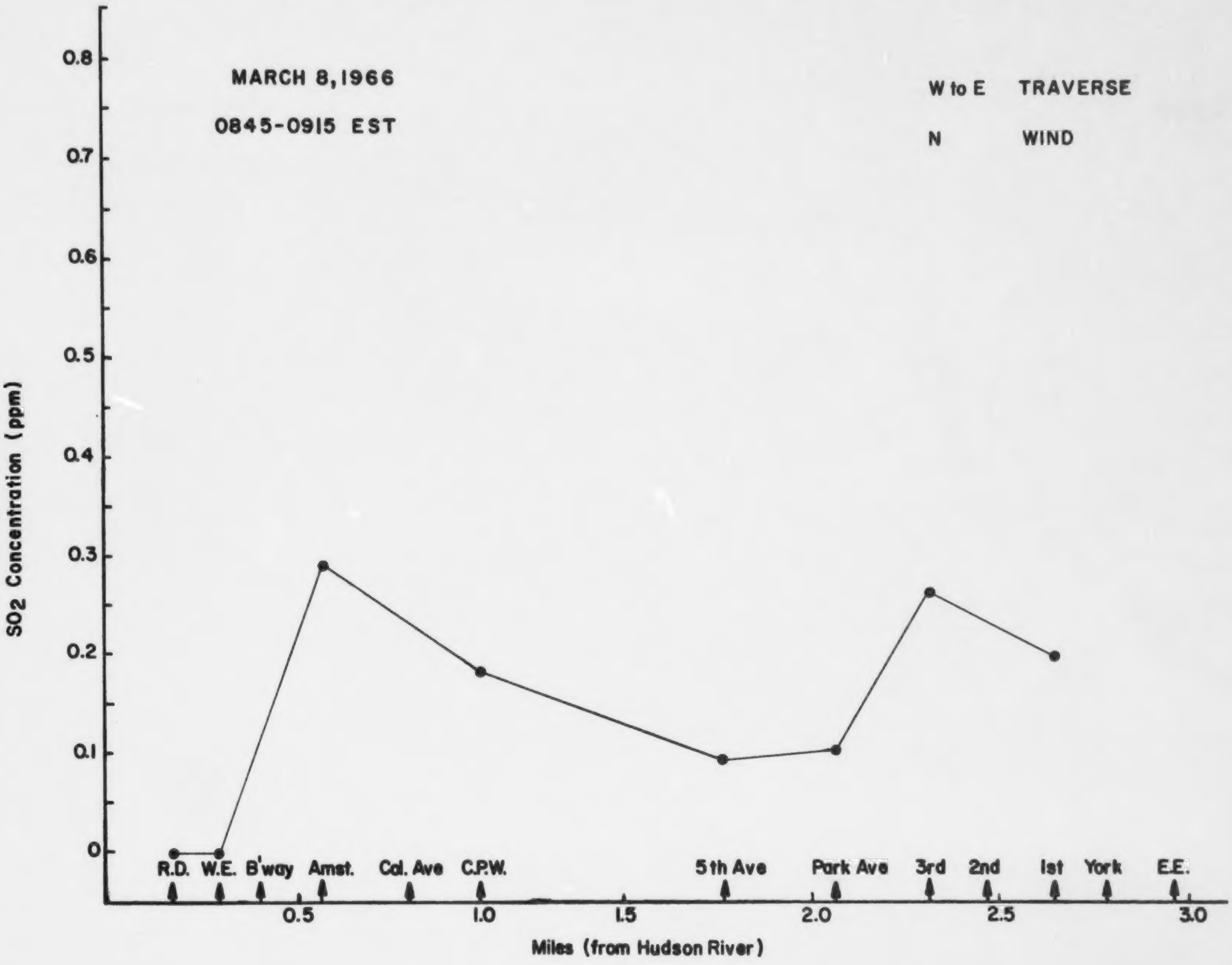
SEVENTY-NINTH STREET SO_2 TRAVERSES

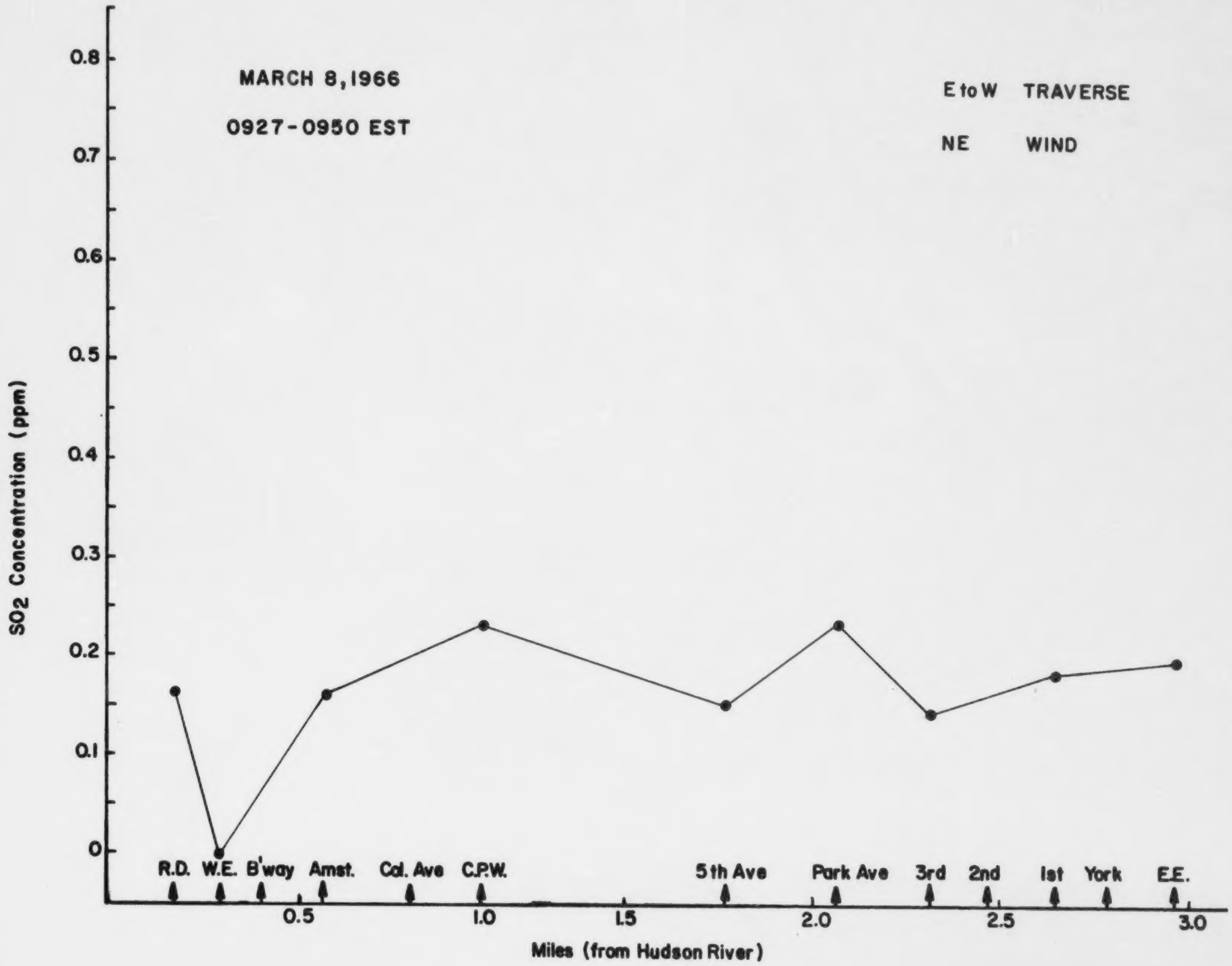

MARCH 8, 1966
0617-0703 EST
W to E TRAVERSE
N WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

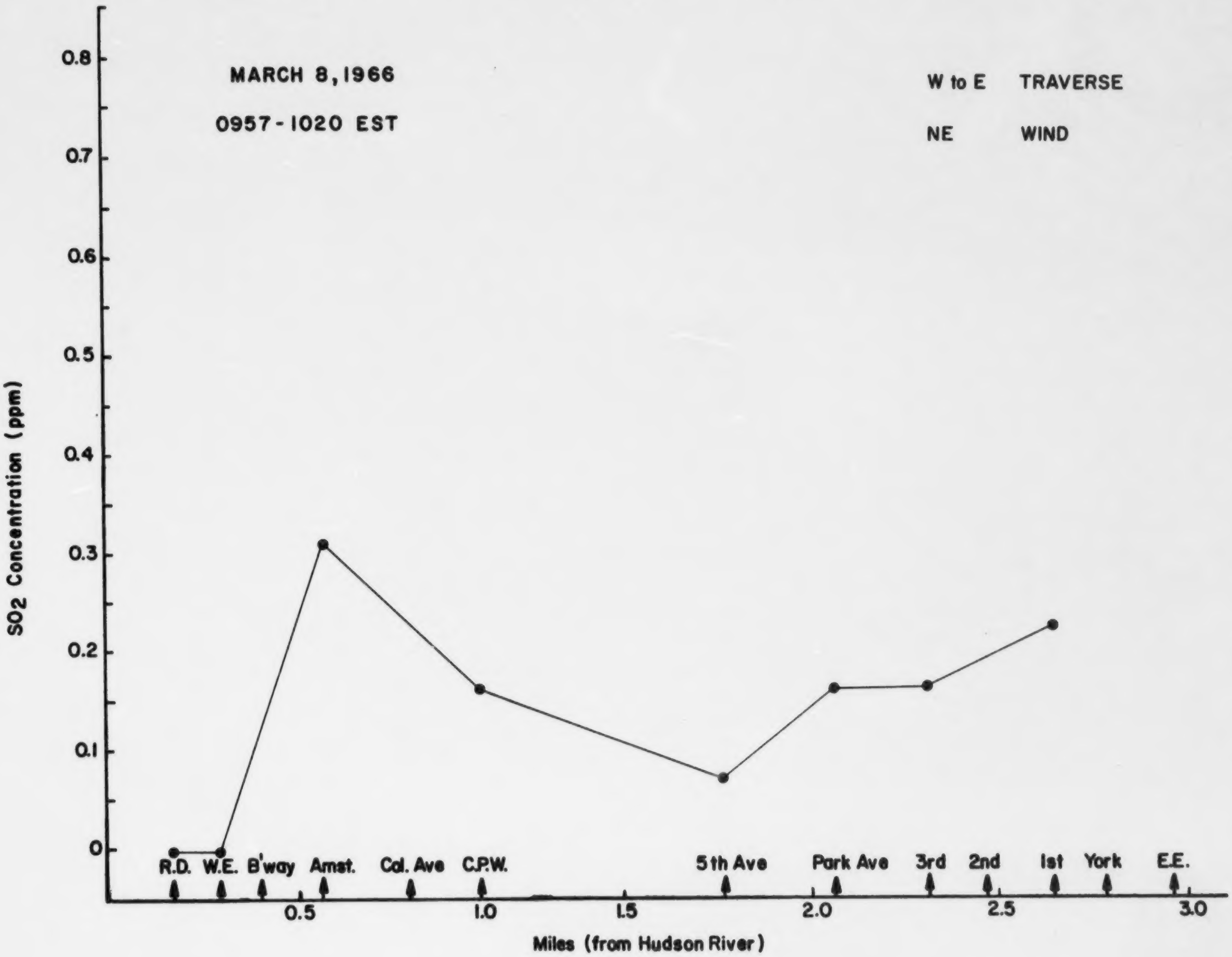

MARCH 8, 1966
0706 - 0735 EST
E to W TRAVERSE
NW WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 8, 1966
0744-0804 EST
W to E TRAVERSE
NW WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 8, 1966
0810-0834 EST
E to W TRAVERSE
NW WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 8, 1966
0845-0915 EST
W to E TRAVERSE
N WIND
SO$_2$ Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 8, 1966
0927-0950 EST
E to W TRAVERSE
NE WIND
SO_2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

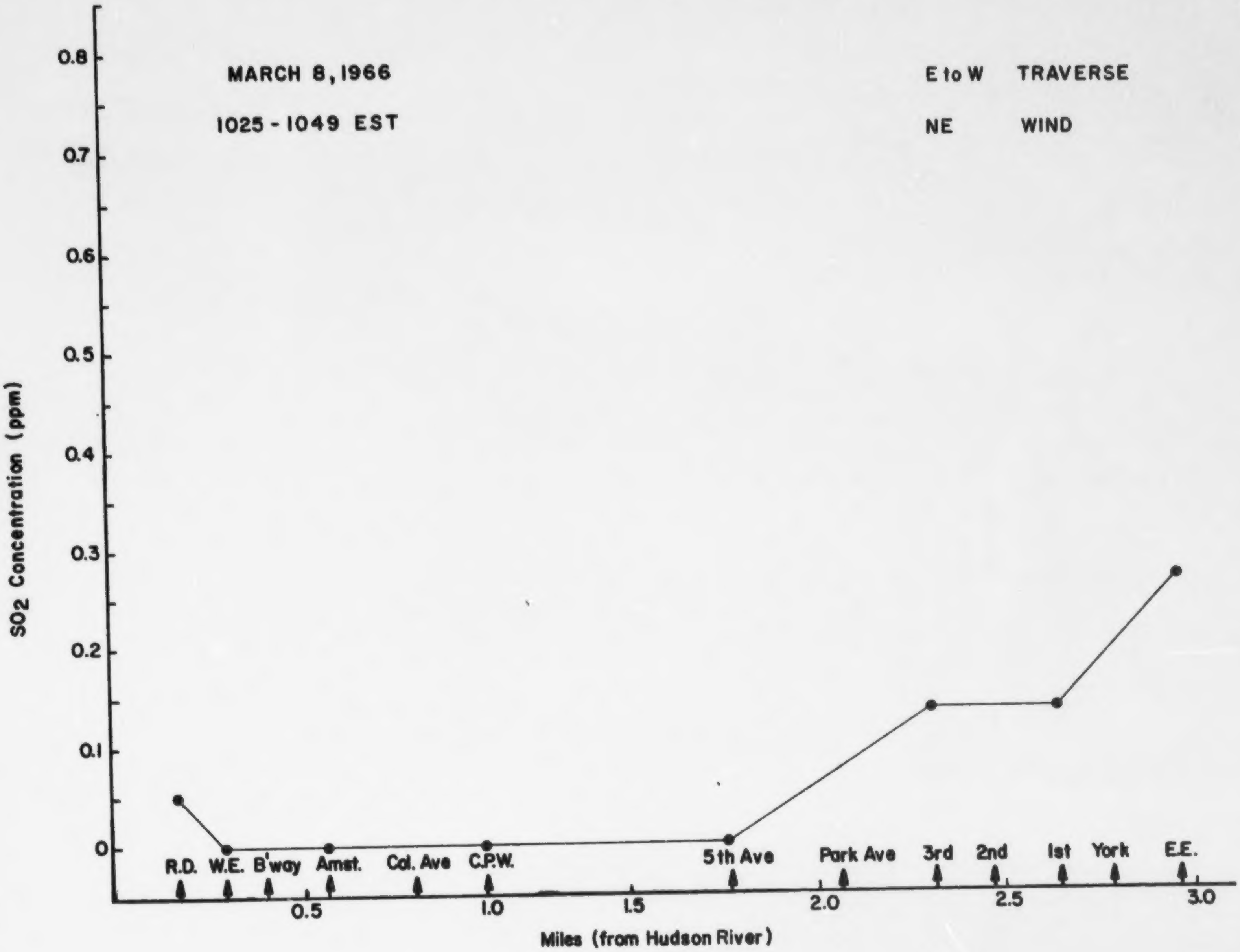


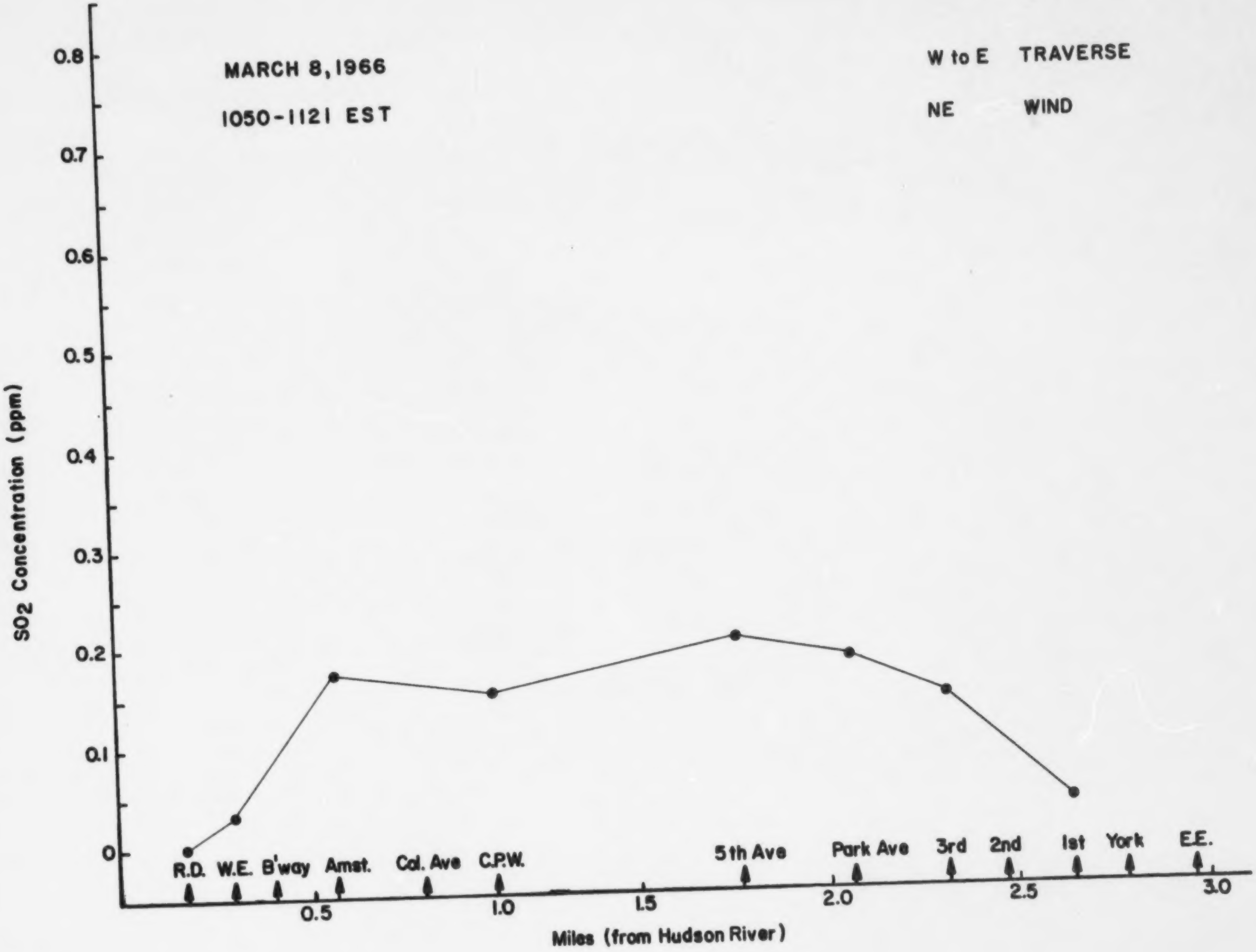
MARCH 8, 1966

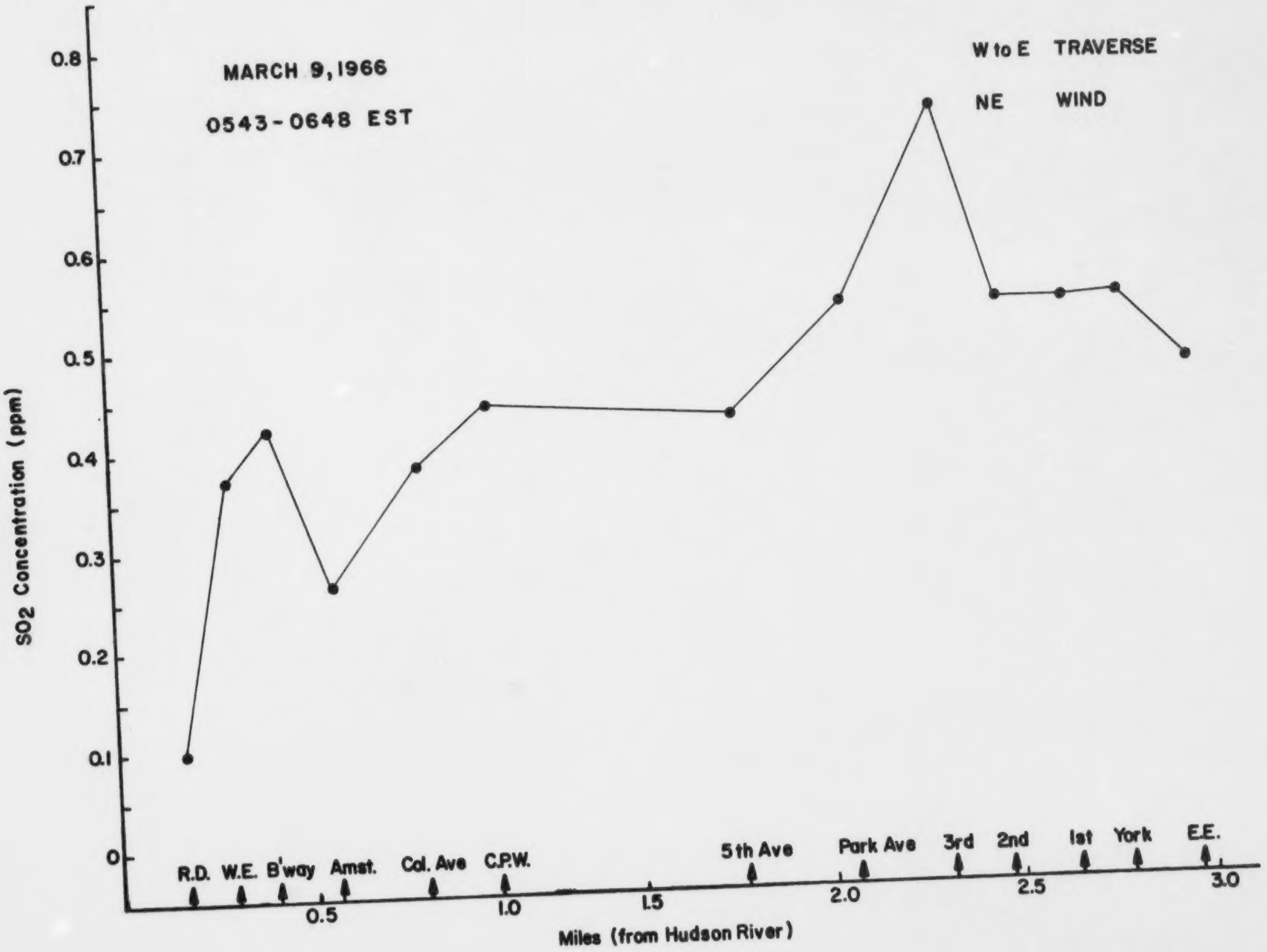
0957 - 1020 EST

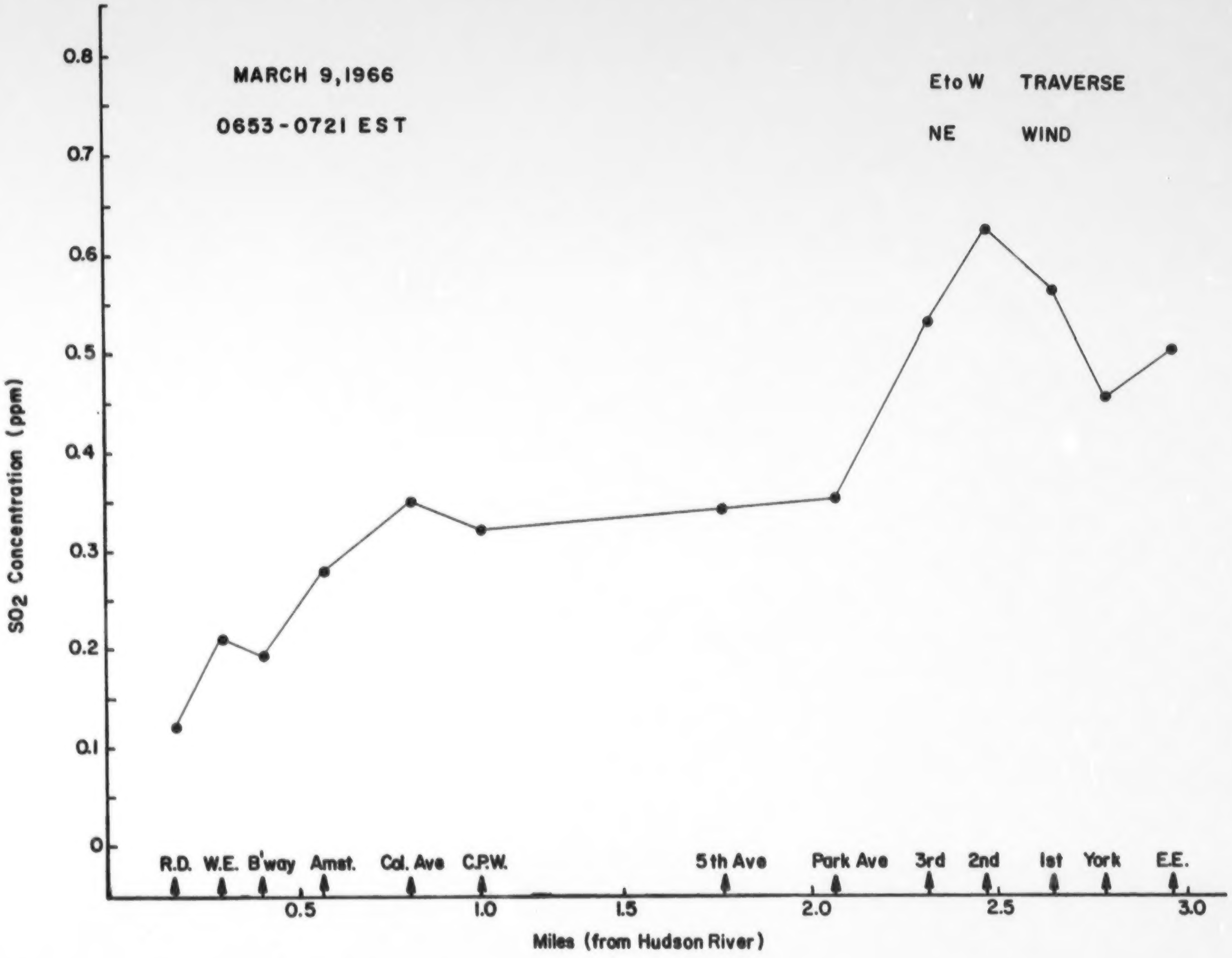
W to E TRAVERSE

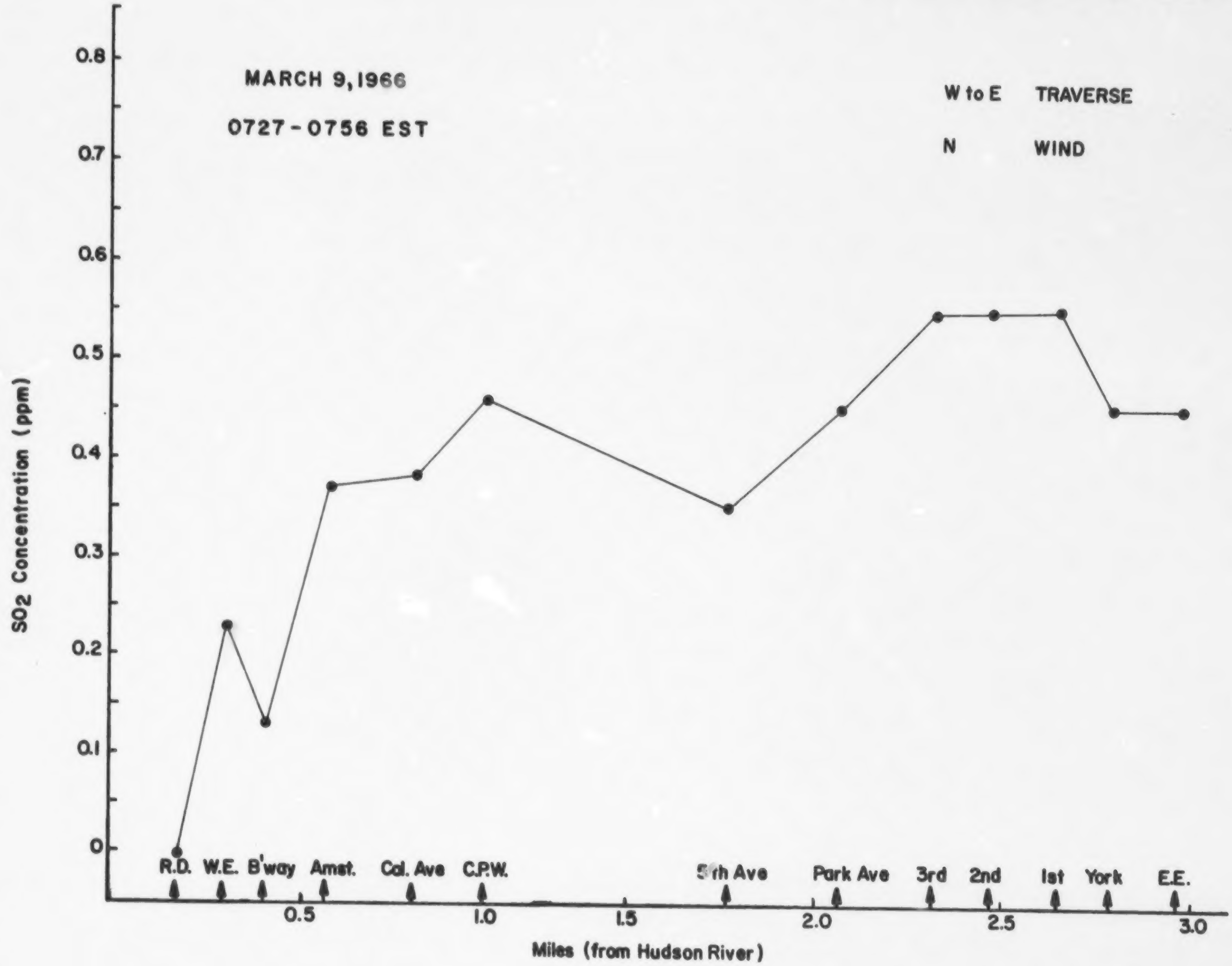
NE WIND

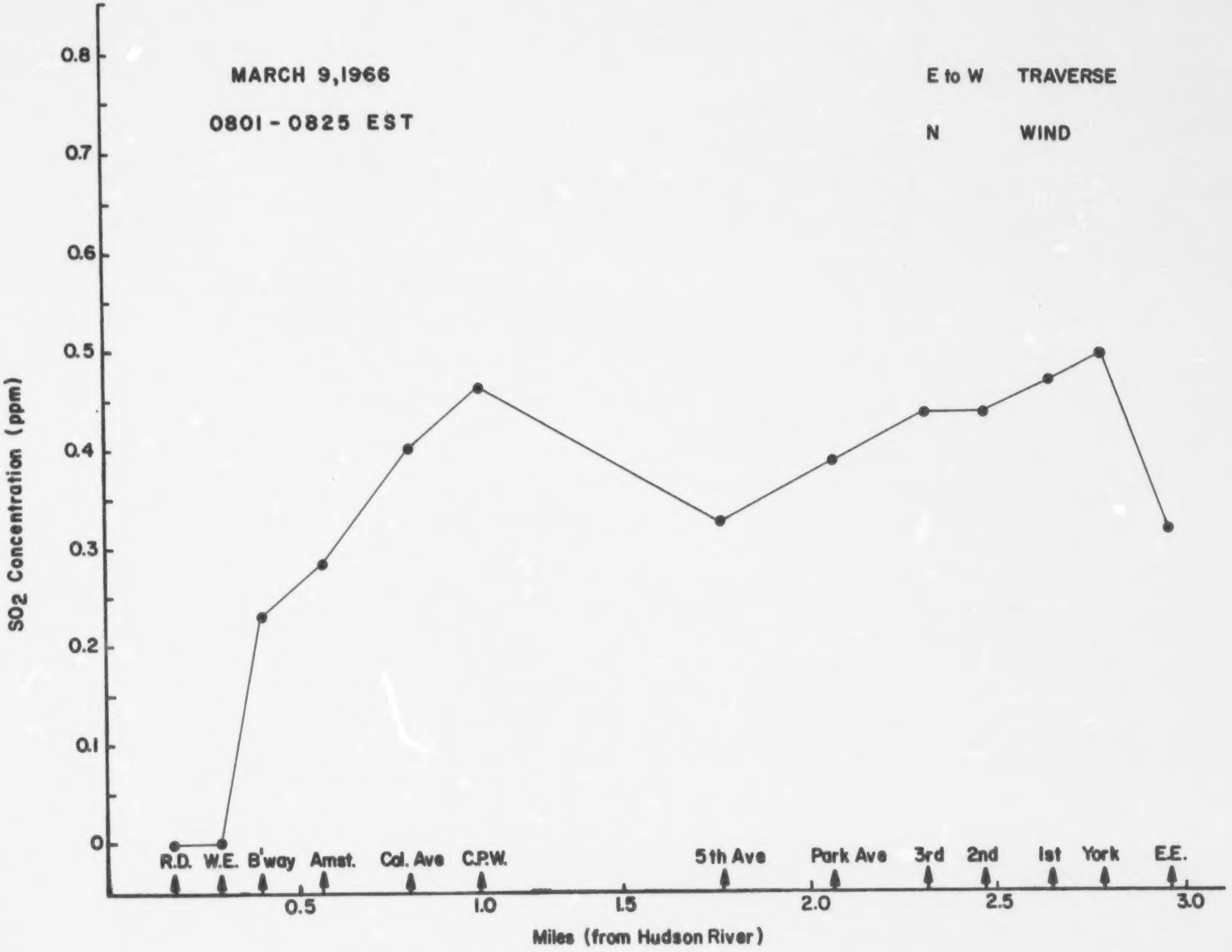

MARCH 8, 1966
1025 - 1049 EST
E to W TRAVERSE
NE WIND
SO_2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 8, 1966
1050-1121 EST
W to E TRAVERSE
NE WIND
SO$_2$ Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

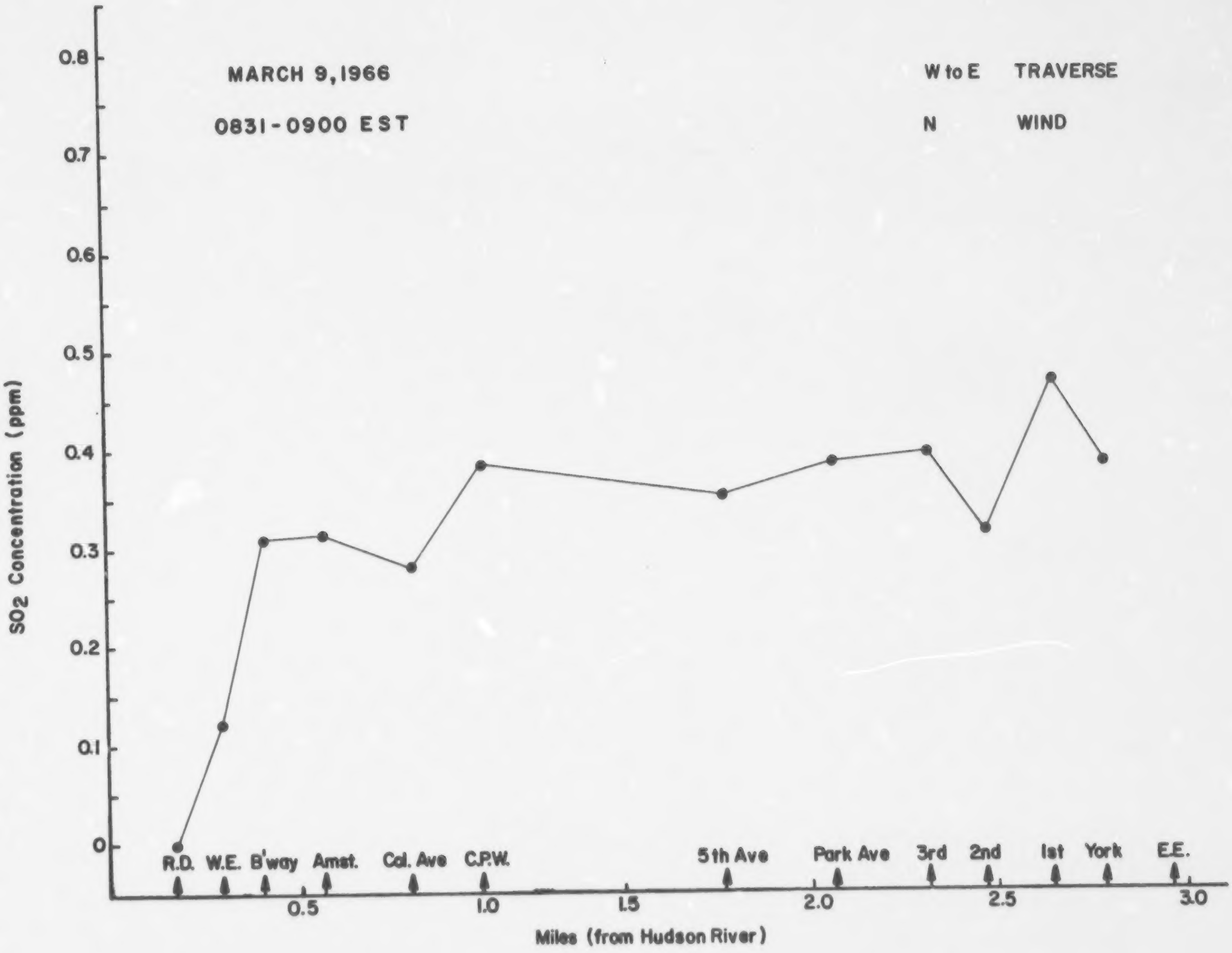

MARCH 9, 1966
0543-0648 EST
W to E TRAVERSE
NE WIND
SO_2 Concentration (ppm)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

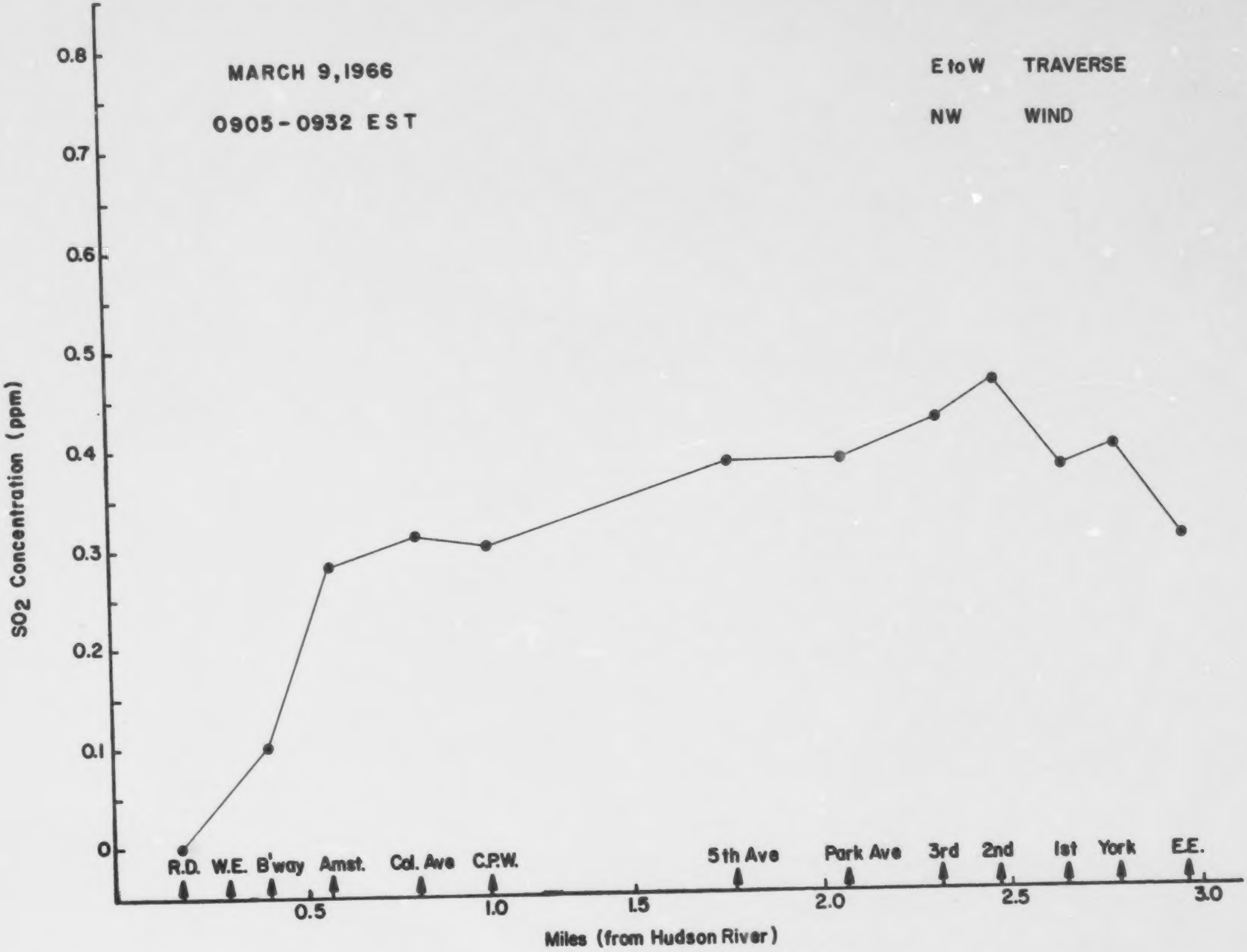

MARCH 9,1966
0653-0721 EST
E to W TRAVERSE
NE WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

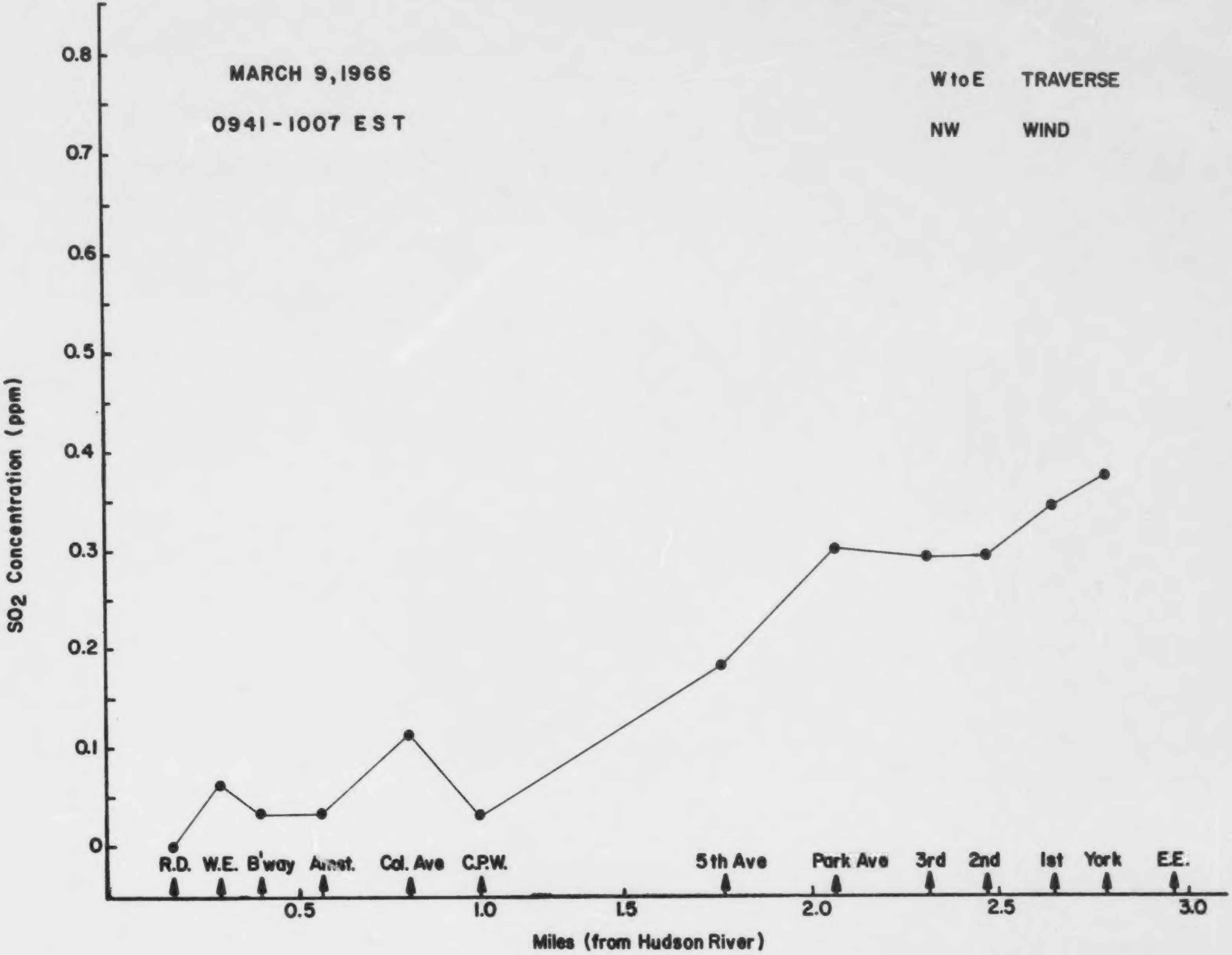

MARCH 9, 1966
0727 - 0756 EST
W to E TRAVERSE
N WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

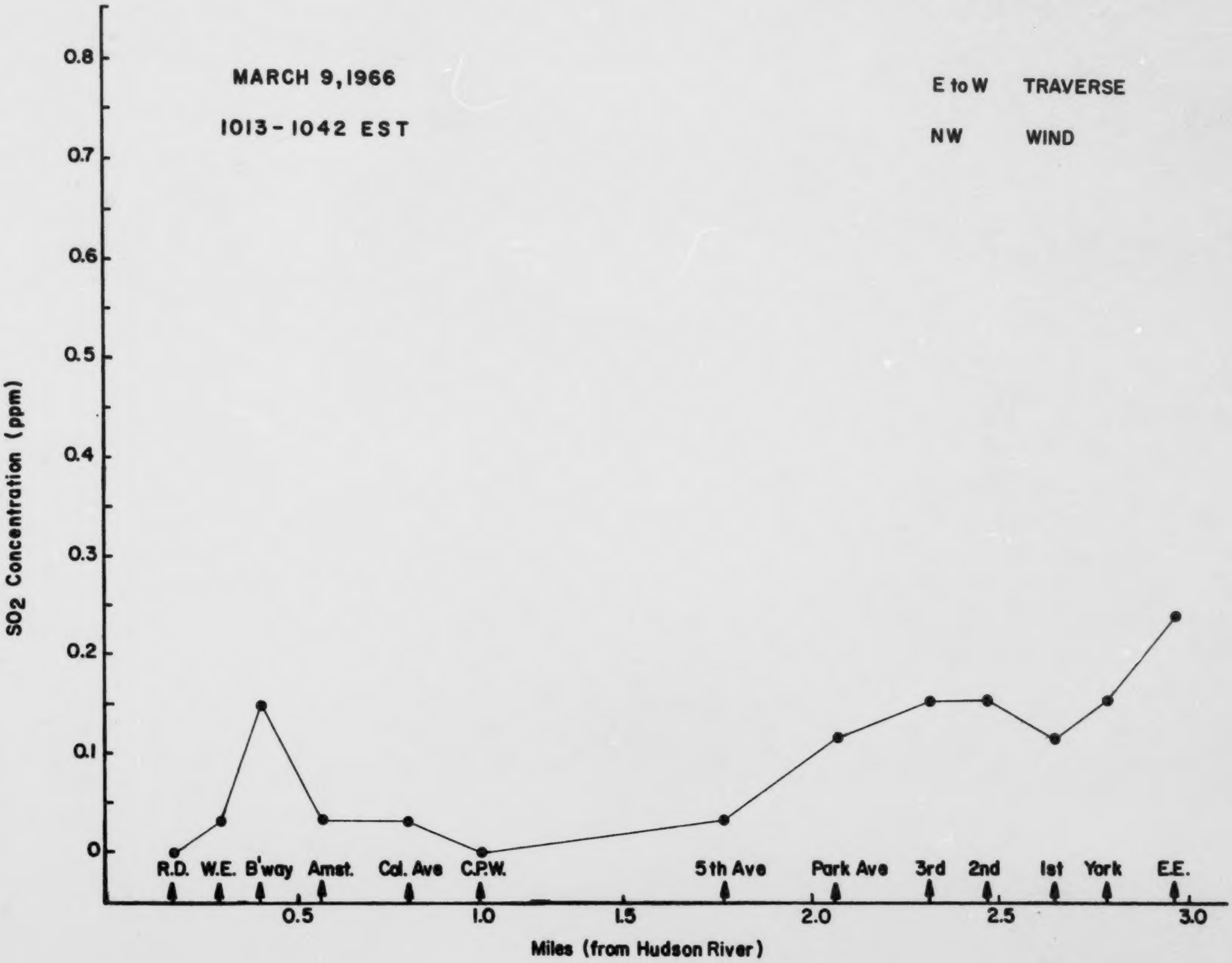


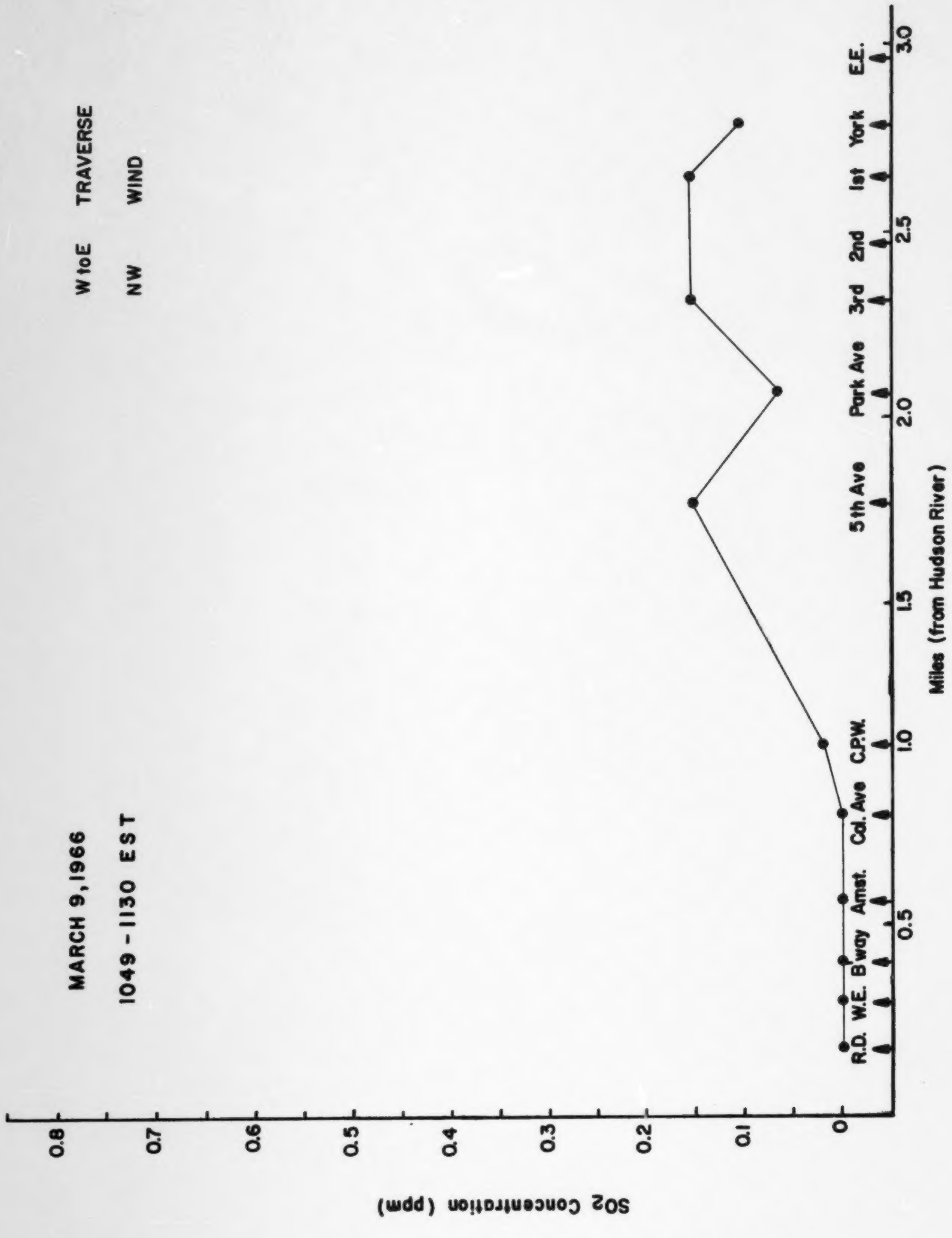
MARCH 9,1966
0801 - 0825 EST
E to W TRAVERSE
N WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

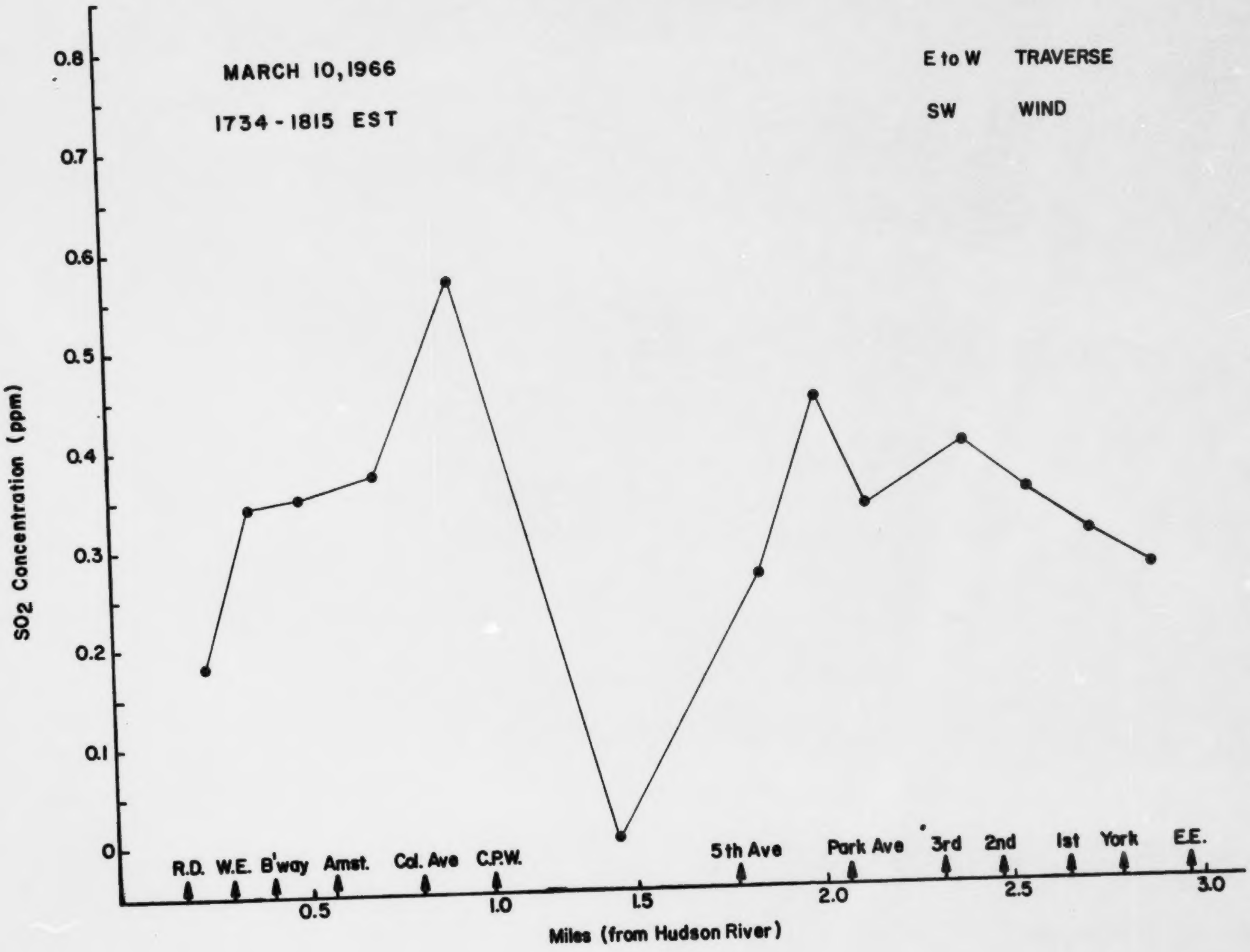

MARCH 9, 1966
0831-0900 EST
W to E TRAVERSE
N WIND
SO_2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

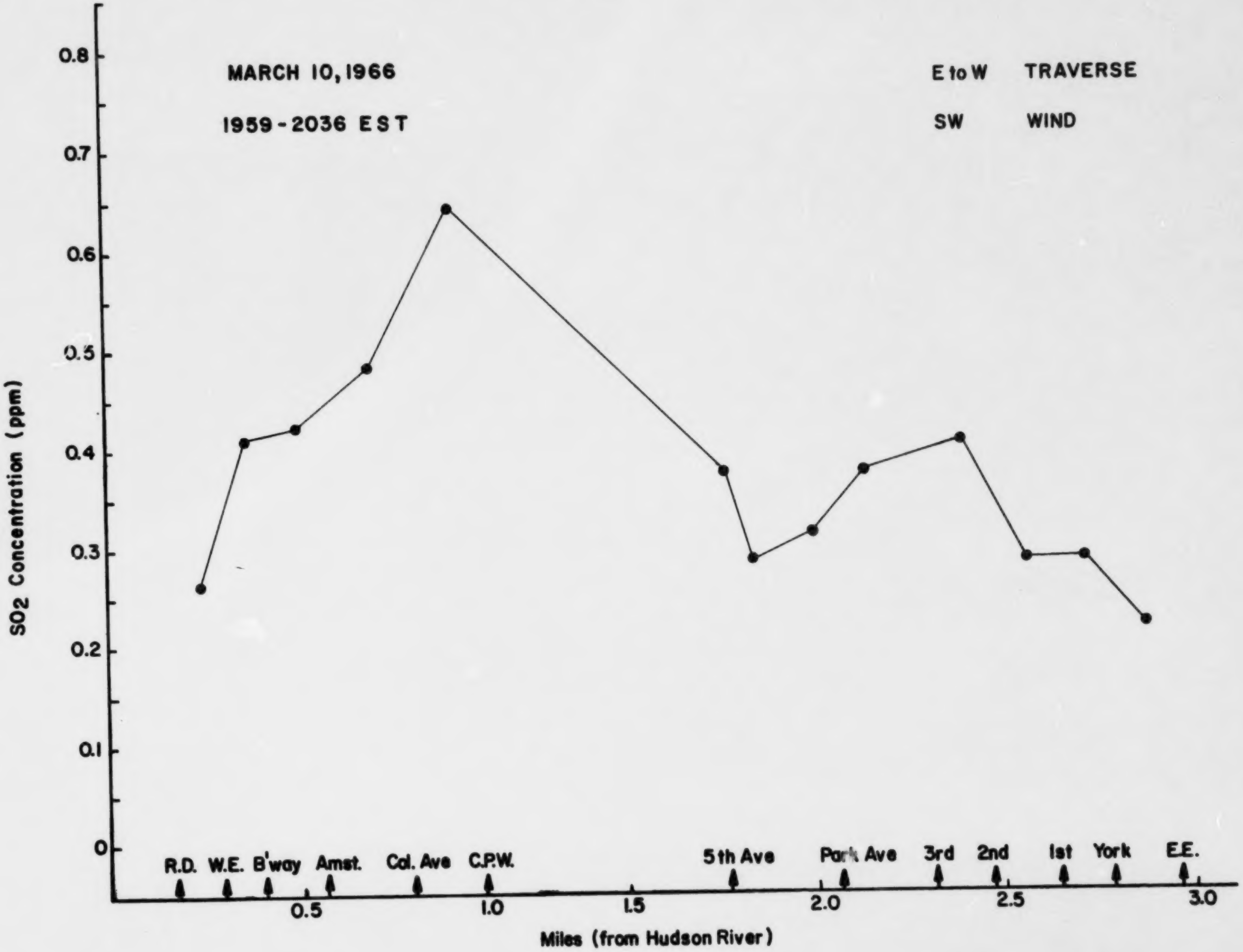

MARCH 9, 1966
0905 - 0932 EST
E to W TRAVERSE
NW WIND
SO_2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

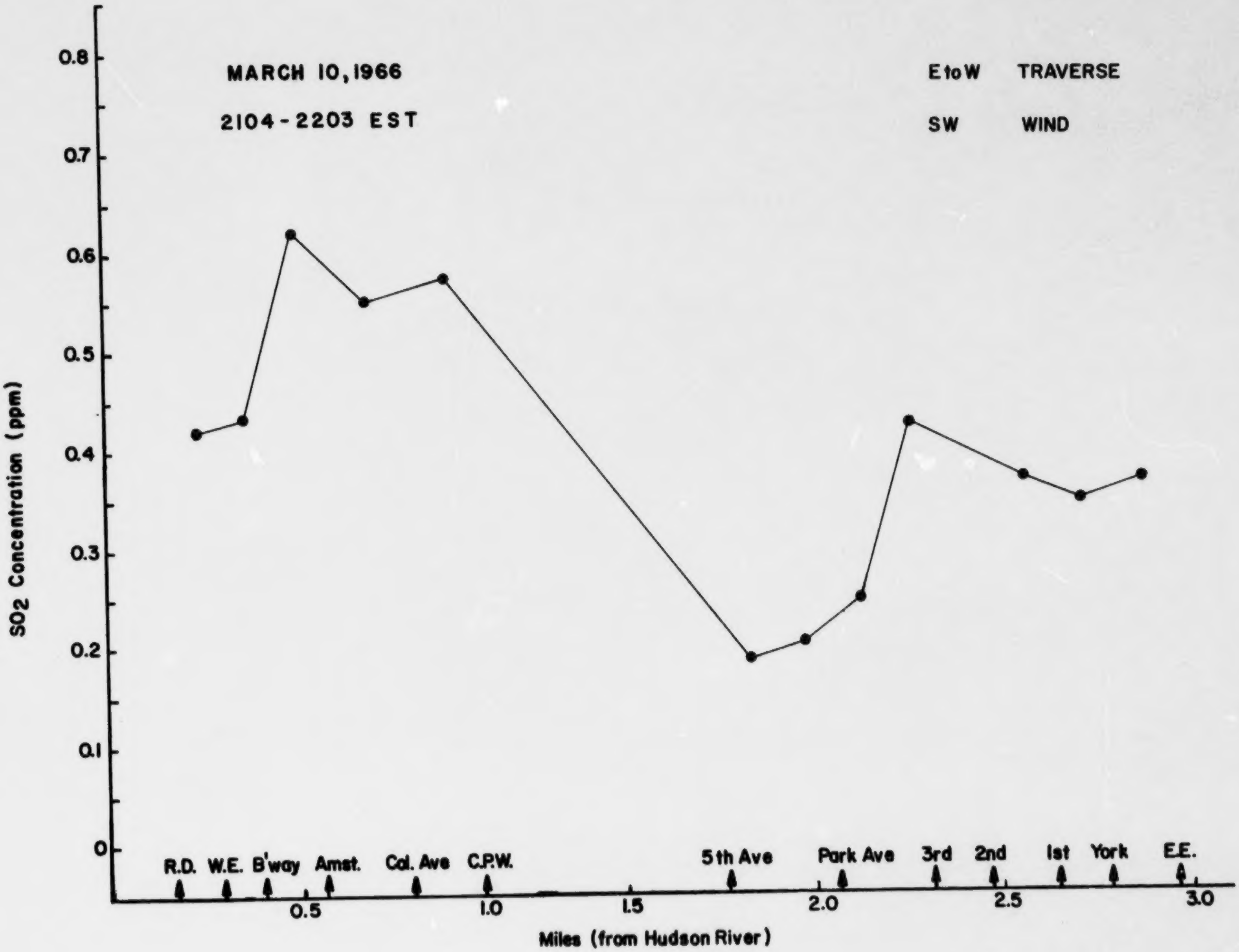

MARCH 9, 1966
0941 - 1007 EST
W to E TRAVERSE
NW WIND
SO2 Concentration (ppm)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 9,1966
1013 - 1042 EST
E to W TRAVERSE
NW WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 9, 1966
1049 - 1130 EST
W to E TRAVERSE
NW WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 10, 1966
1734 - 1815 EST
E to W TRAVERSE
SW WIND
SO2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 10, 1966
1959 - 2036 EST
E to W TRAVERSE
SW WIND
SO_2 Concentration (ppm)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)


MARCH 10, 1966
2104 - 2203 EST
E to W TRAVERSE
SW WIND
SO2 Concentration (ppm)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
R.D.
W.E.
B'way
Amst.
Col. Ave
C.P.W.
5th Ave
Park Ave
3rd
2nd
1st
York
E.E.
0.5
1.0
1.5
2.0
2.5
3.0
Miles (from Hudson River)

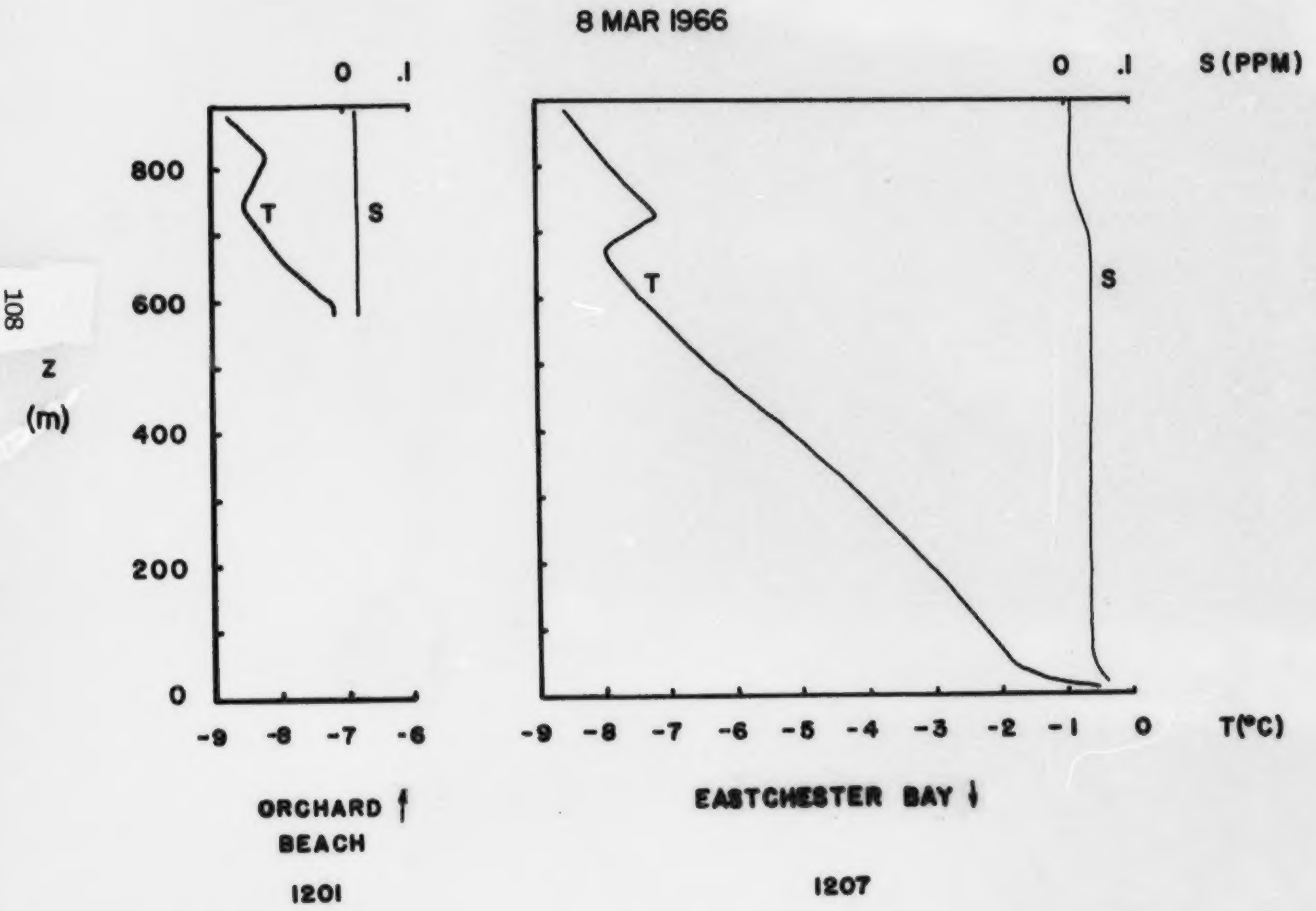
TYPING GUIDE SHEET
BEGIN FIRST LINE OF TEXT HERE
CENTER OF PAGE
TOP OF IMAGE AREA
DROPPED HEAD: BEGIN SECTIONS HERE

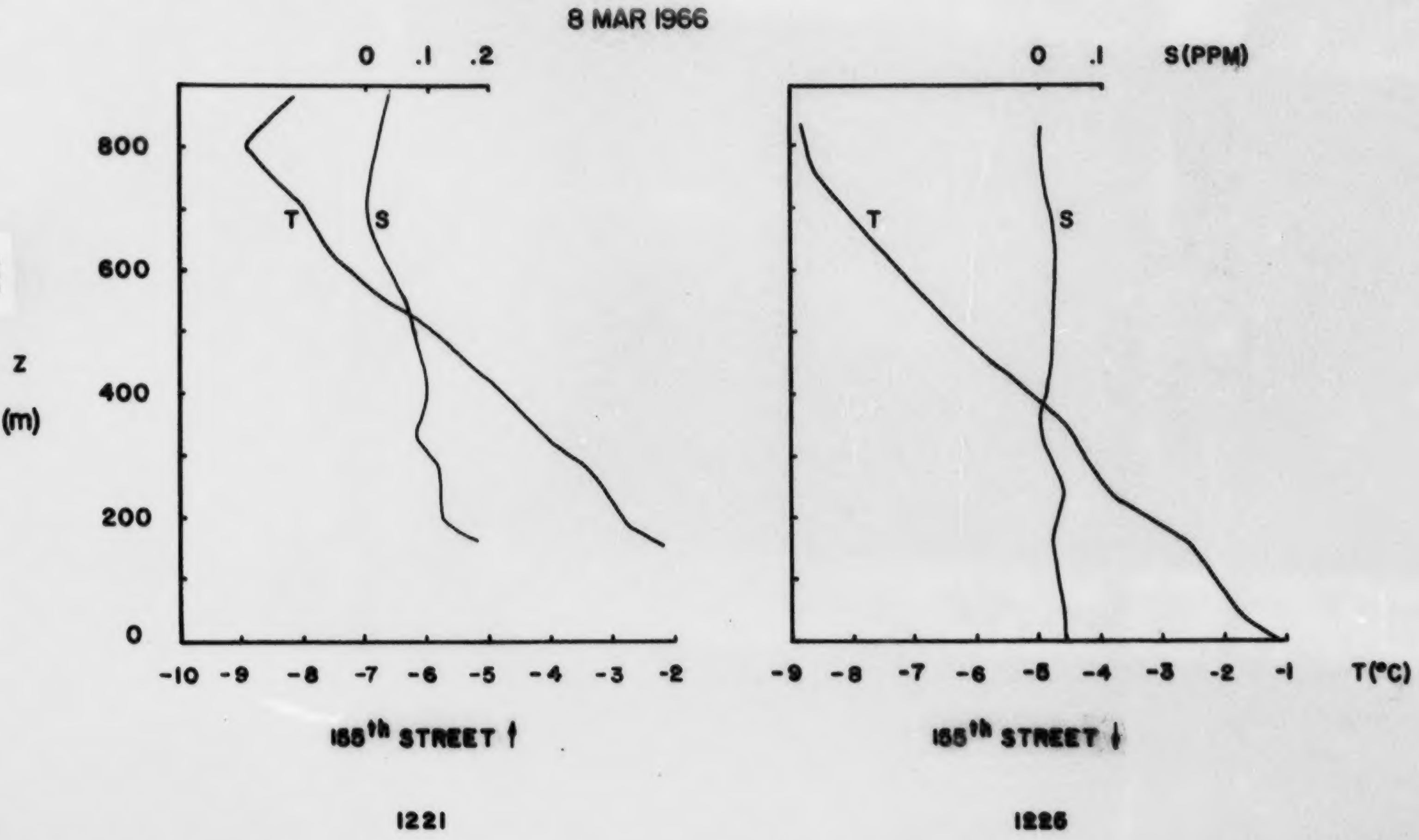
APPENDIX III

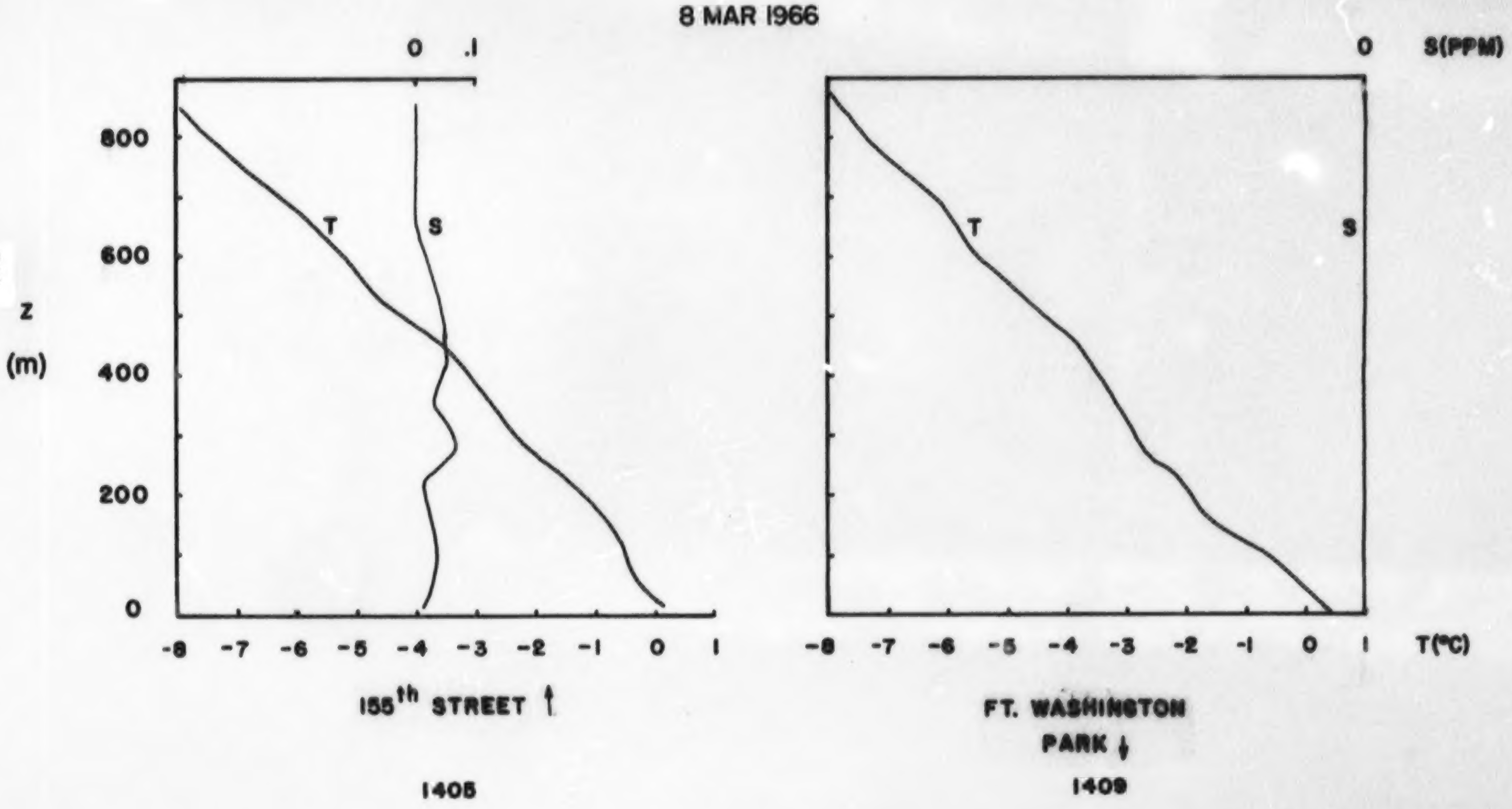
HELICOPTER SOUNDINGS OF TEMPERATURE AND SO_2

6-1/2"
9-1/8"
BEGIN LAST LINE OF TEXT
BOTTOM OF IMAGE AREA OUTSIDE DIMENSION FOR TABLES AND ILLUSTRATIONS
3/8"

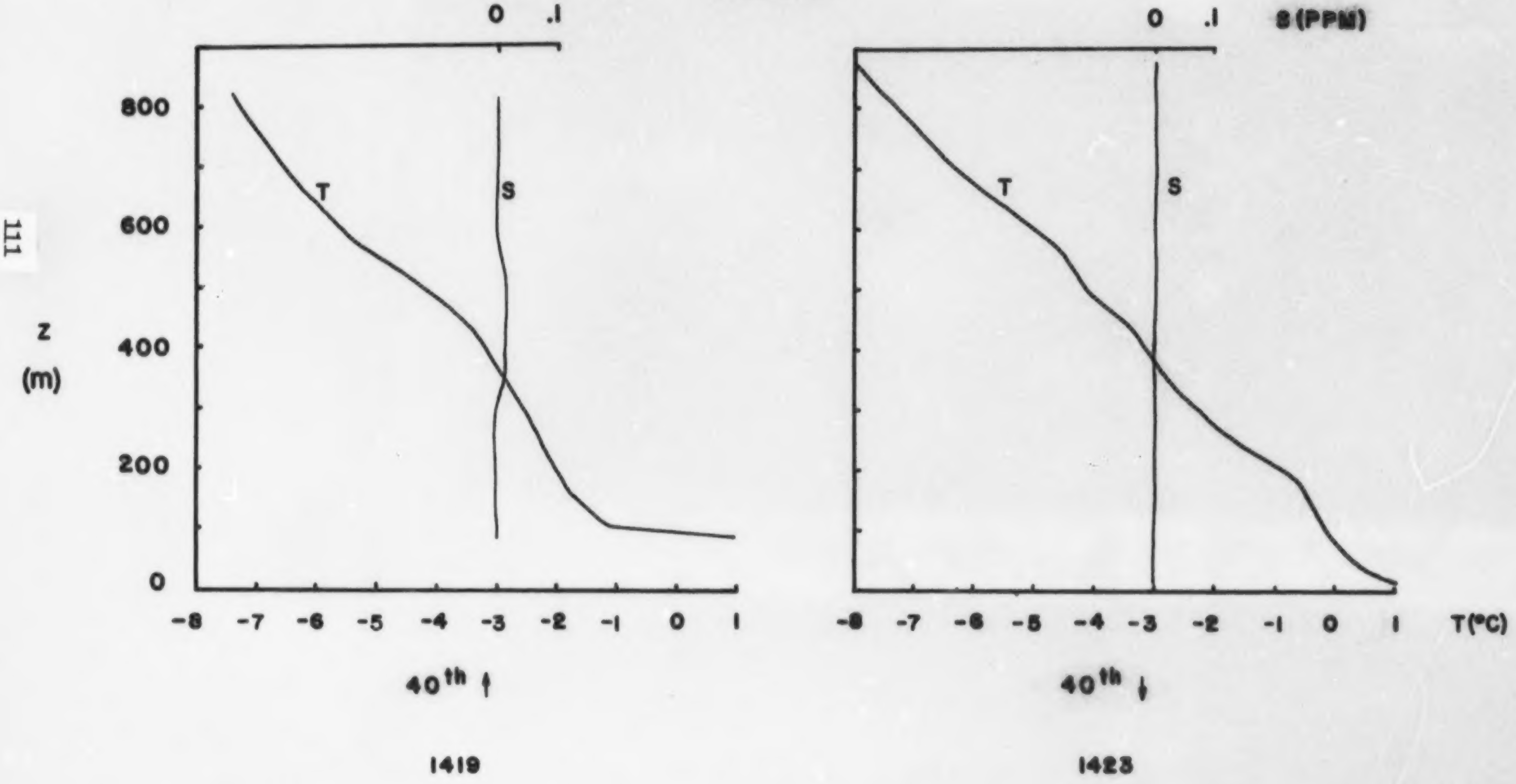
PAGE NUMBER
EPA-287 (Cin.)
(4-76)

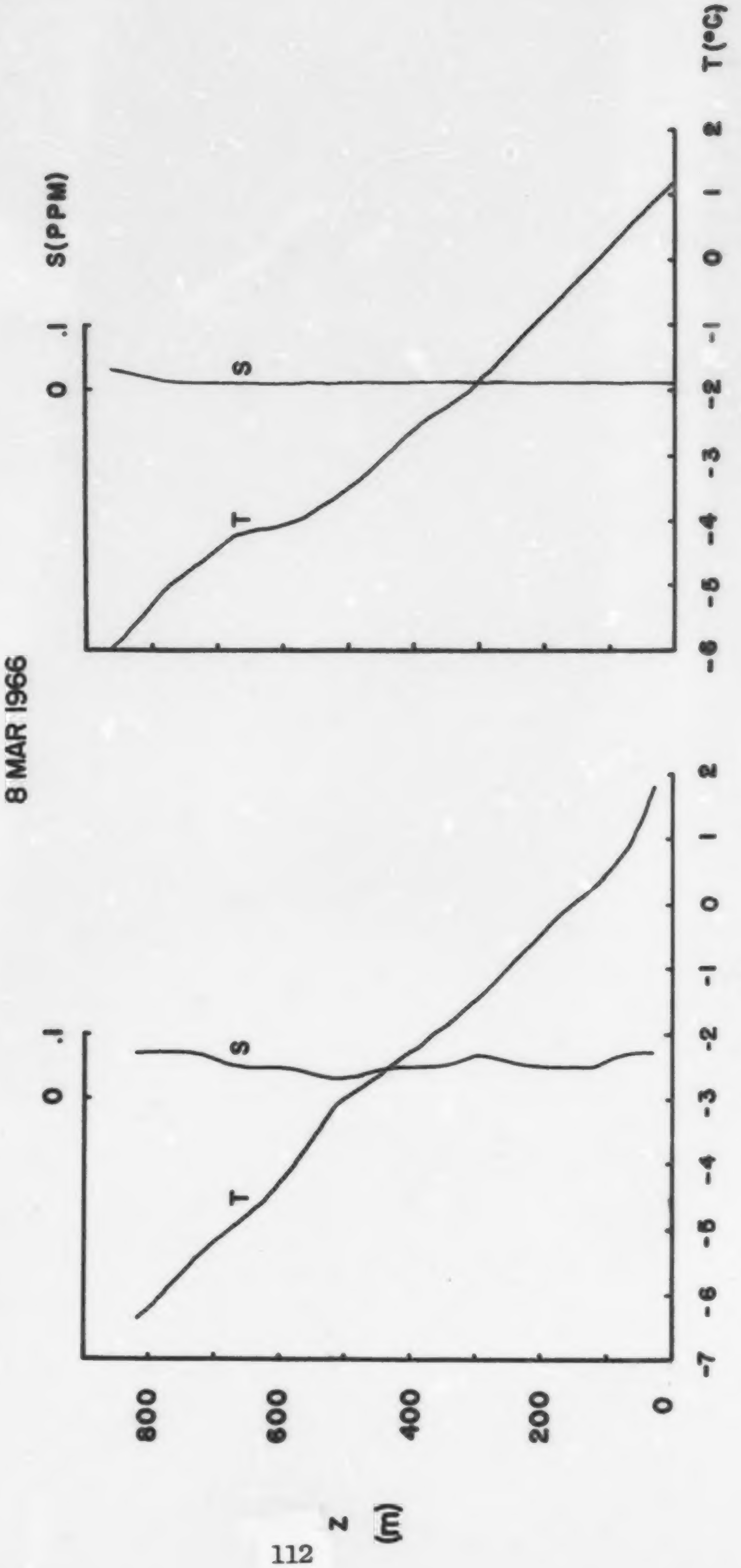

8 MAR 1966
0
.1
S (PPM)
800
600
400
200
0
Z
(m)
T
S
T
S
-9
-8
-7
-6
-9
-8
-7
-6
-5
-4
-3
-2
-1
0
T(°C)
ORCHARD BEACH
1201
EASTCHESTER BAY
1207

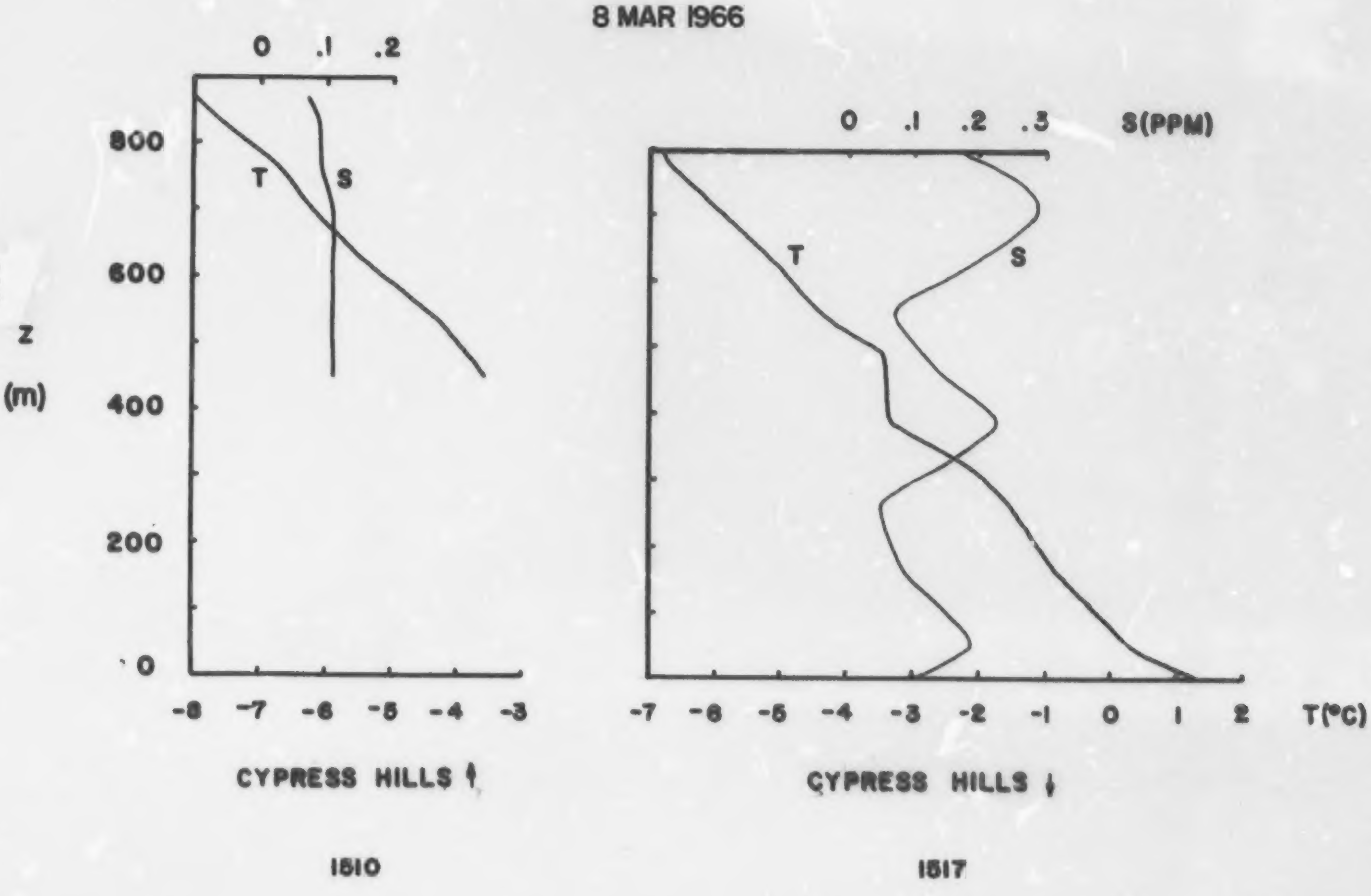

8 MAR 1966
0
.1
.2
800
600
400
200
0
z
(m)
T
S
-10
-9
-8
-7
-6
-5
-4
-3
-2
155th STREET ↑
1221
0
.1
S(PPM)
T
S
-9
-8
-7
-6
-5
-4
-3
-2
-1
T(°C)
155th STREET ↓
1225


8 MAR 1966
0
.1
0
S(PPM)
z
(m)
800
600
400
200
0
T
S
T
S
-8
-7
-6
-5
-4
-3
-2
-1
0
1
-8
-7
-6
-5
-4
-3
-2
-1
0
1
T(°C)
155th STREET ↑
1405
FT. WASHINGTON
PARK ↓
1409

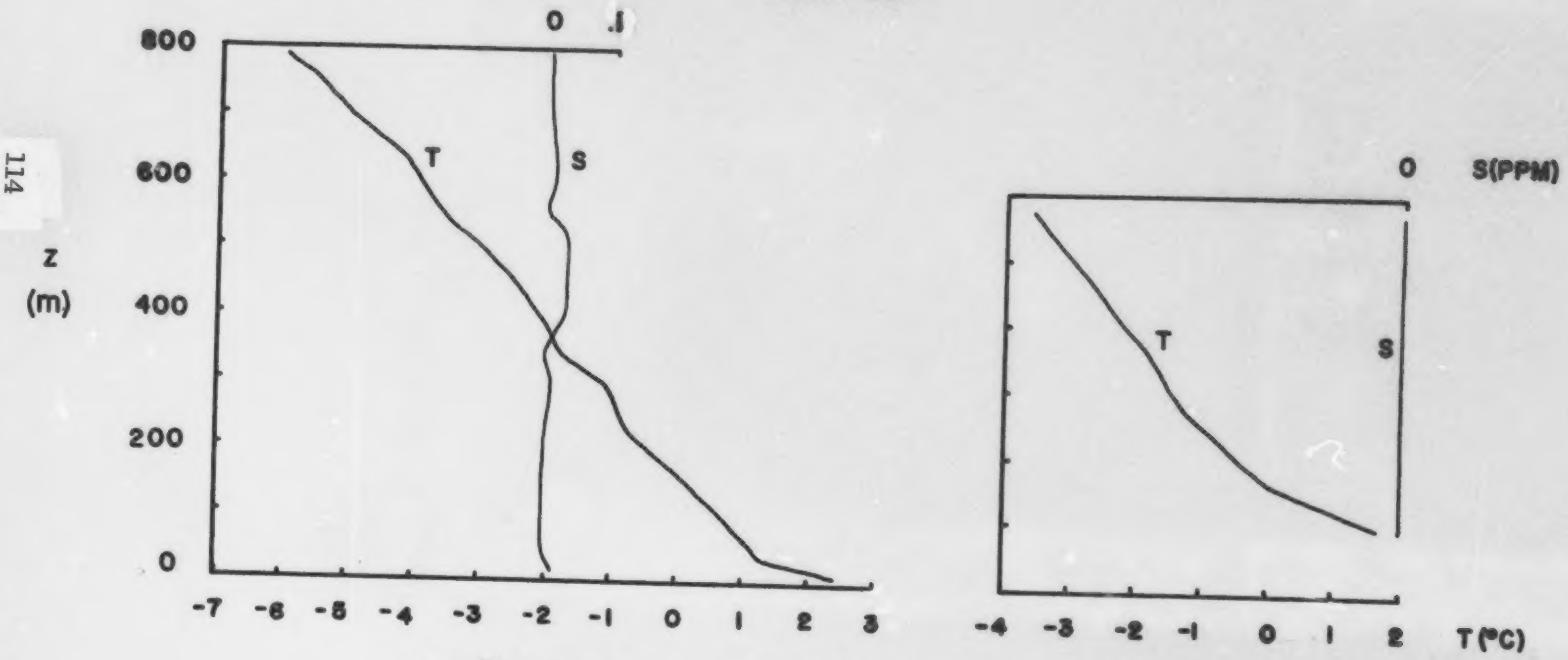
8 MAR 1966


0
.1
S (PPM)
0
.1
800
600
400
200
0
z
(m)
T
S
T
S
-8
-7
-6
-5
-4
-3
-2
-1
0
1
-8
-7
-6
-5
-4
-3
-2
-1
0
1
T(°C)
40th ↑
40th ↓
1419
1423


8 MAR 1966
Z (m)
800
600
400
200
0
0
.1
S(PPM)
T
S
-7
-6
-5
-4
-3
-2
-1
0
1
2
T(°C)
ELLIS ISLAND
1431
GOVERNORS ISLAND
1440


8 MAR 1966
Z
(m)
800
600
400
200
0
0
.1
.2
T
S
-8
-7
-6
-5
-4
-3
CYPRESS HILLS ↑
1510
0
.1
.2
.3
S(PPM)
T
S
-7
-6
-5
-4
-3
-2
-1
0
1
2
T(°C)
CYPRESS HILLS ↓
1517

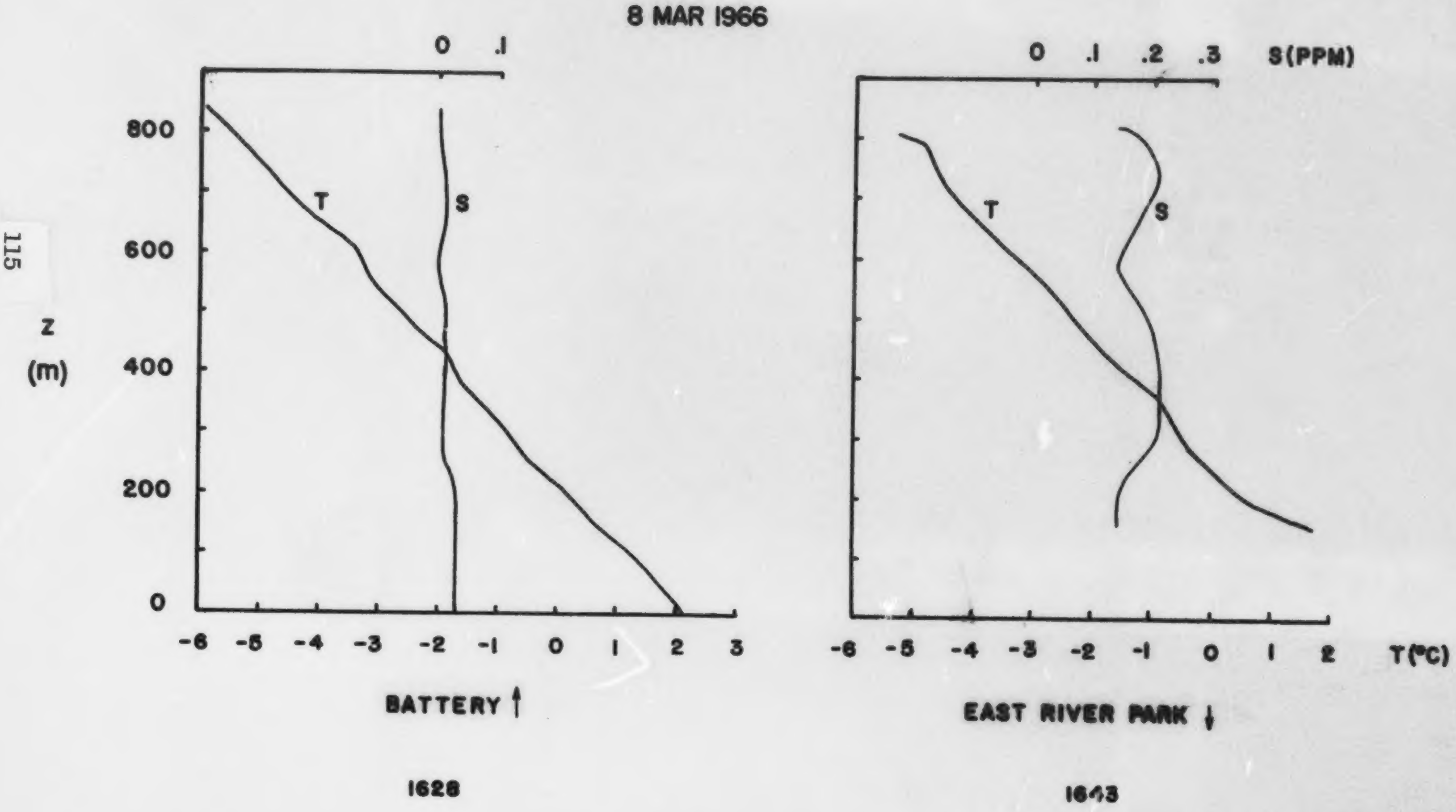
8 MAR 1966



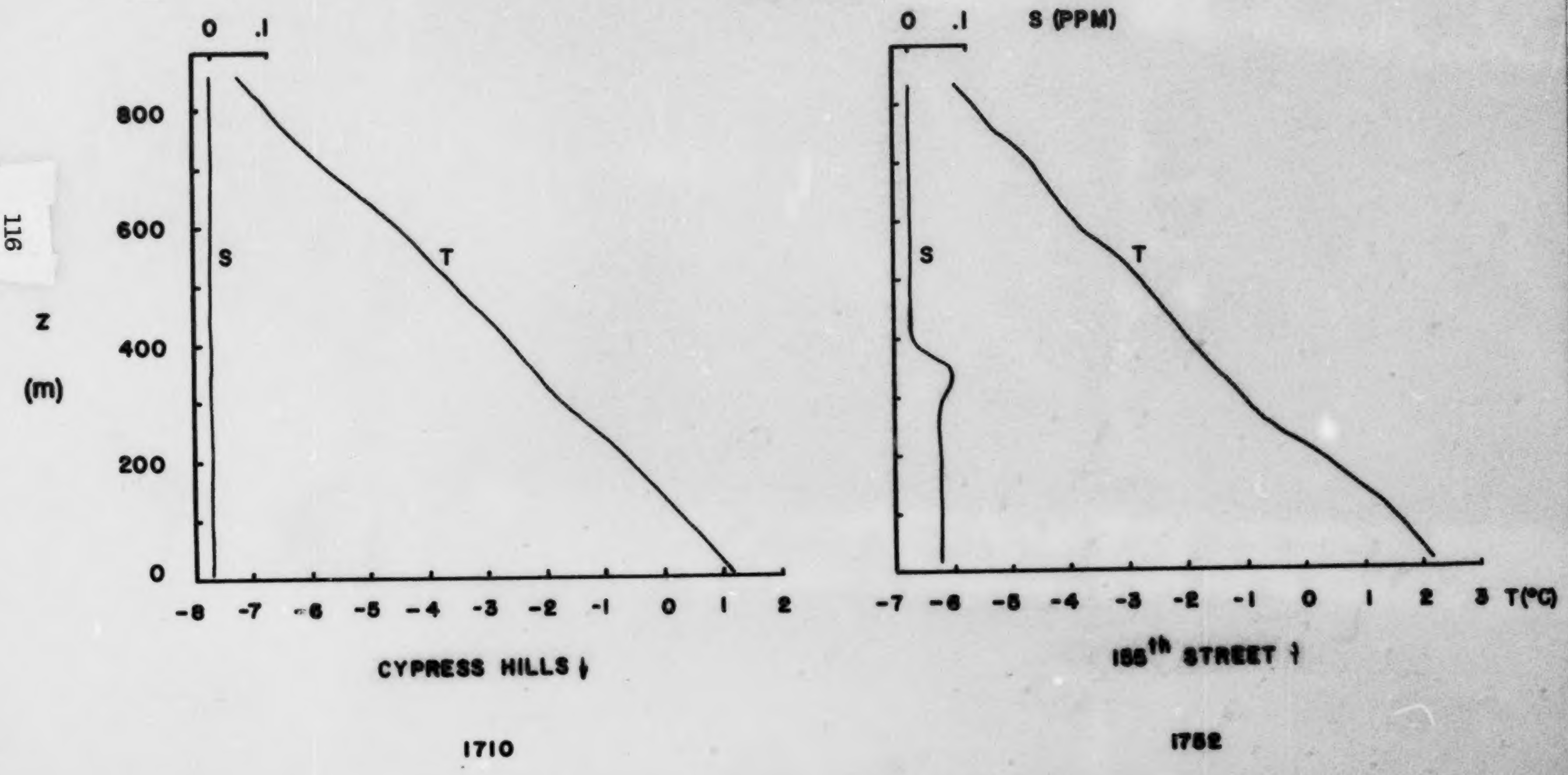
155th STREET ↑

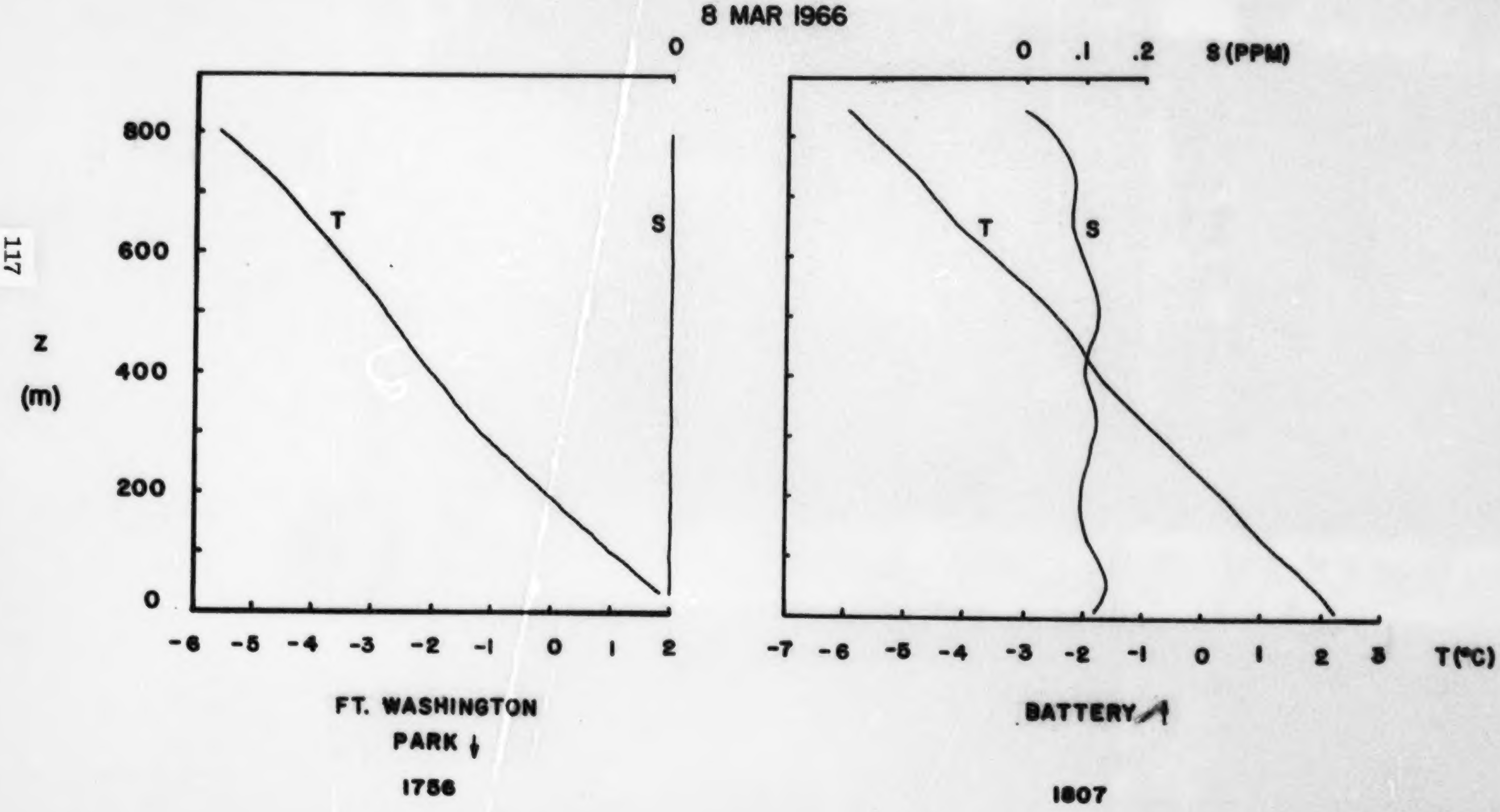
1612

FT. WASHINGTON
PARK ↓
1618

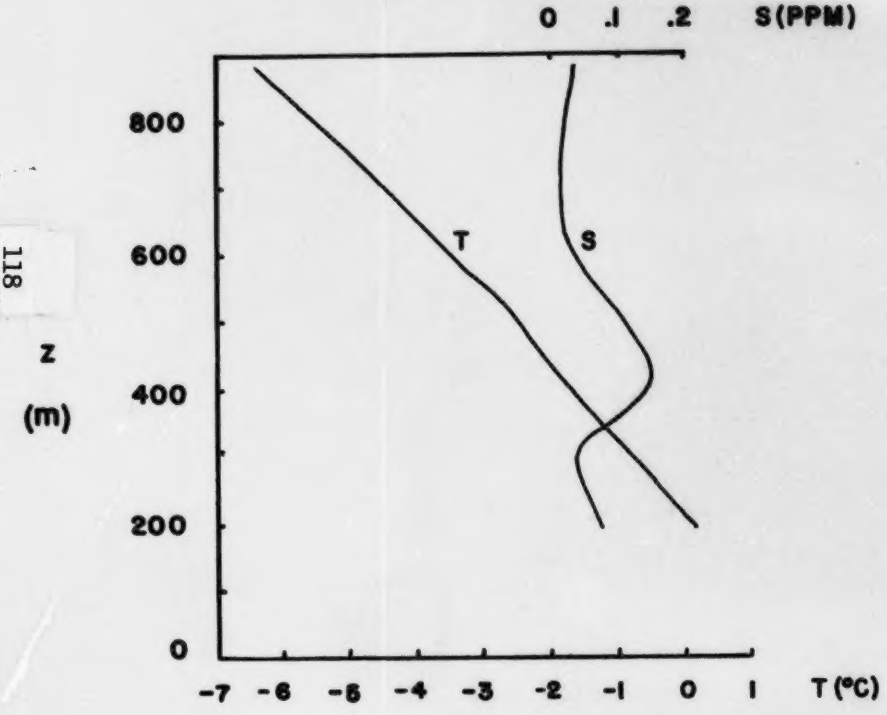

8 MAR 1966
0
.1
800
600
400
200
0
Z
(m)
T
S
-6
-5
-4
-3
-2
-1
0
1
2
3
BATTERY ↑
1628
0
.1
.2
.3
S(PPM)
T
S
-6
-5
-4
-3
-2
-1
0
1
2
T(°C)
EAST RIVER PARK ↓
1643

8 MAR 1966


0
.1
S (PPM)
Z
(m)
800
600
400
200
0
S
T
-8
-7
-6
-5
-4
-3
-2
-1
0
1
2
CYPRESS HILLS ↓
1710
-7
-6
-5
-4
-3
-2
-1
0
1
2
3
T(°C)
155th STREET ↑
1752

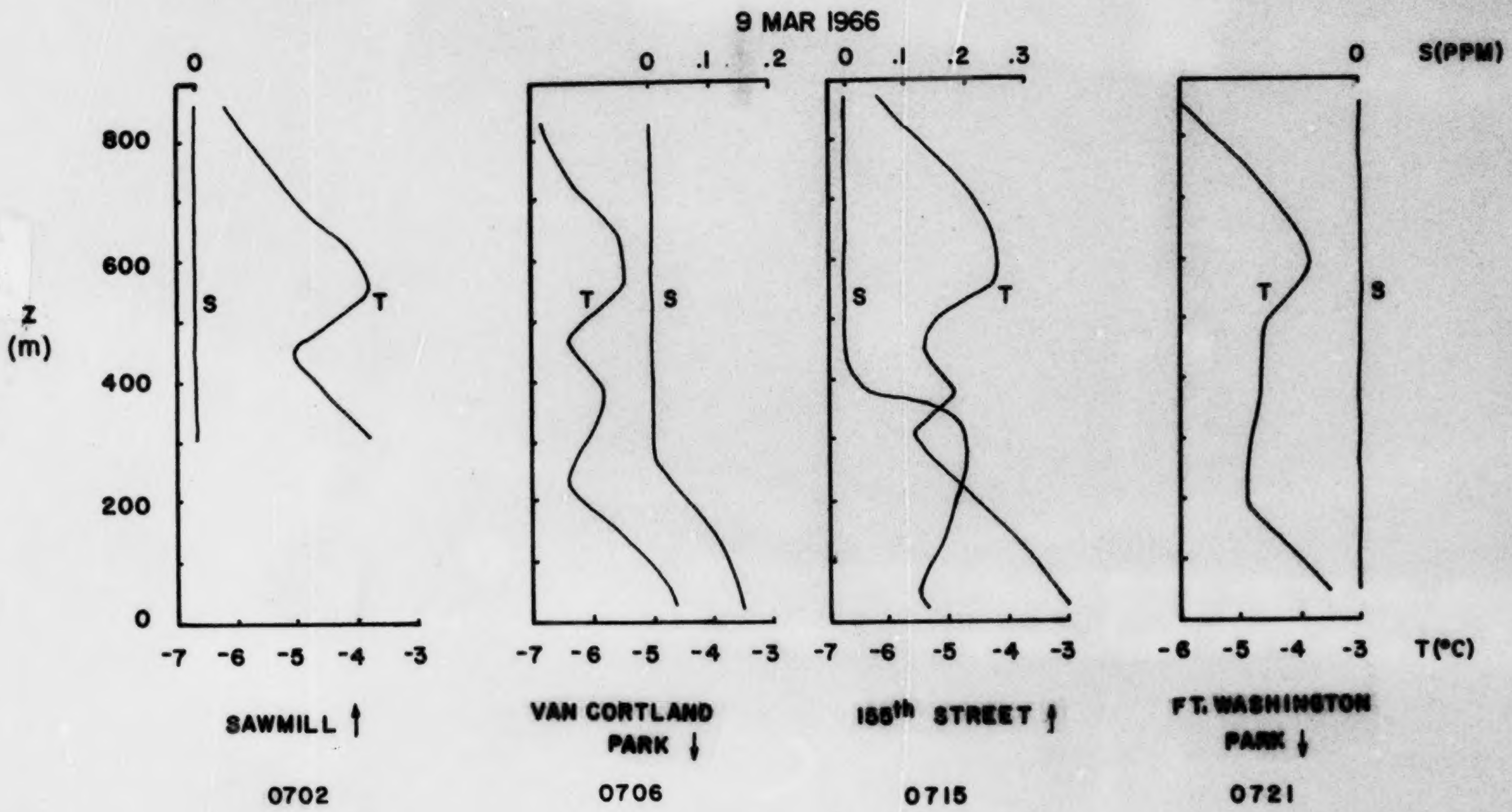

8 MAR 1966
Z
(m)
800
600
400
200
0
T
S
0
-6
-5
-4
-3
-2
-1
0
1
2
FT. WASHINGTON
PARK ↓
1756
0
.1
.2
S (PPM)
T
S
-7
-6
-5
-4
-3
-2
-1
0
1
2
3
T(°C)
BATTERY ↑
1807

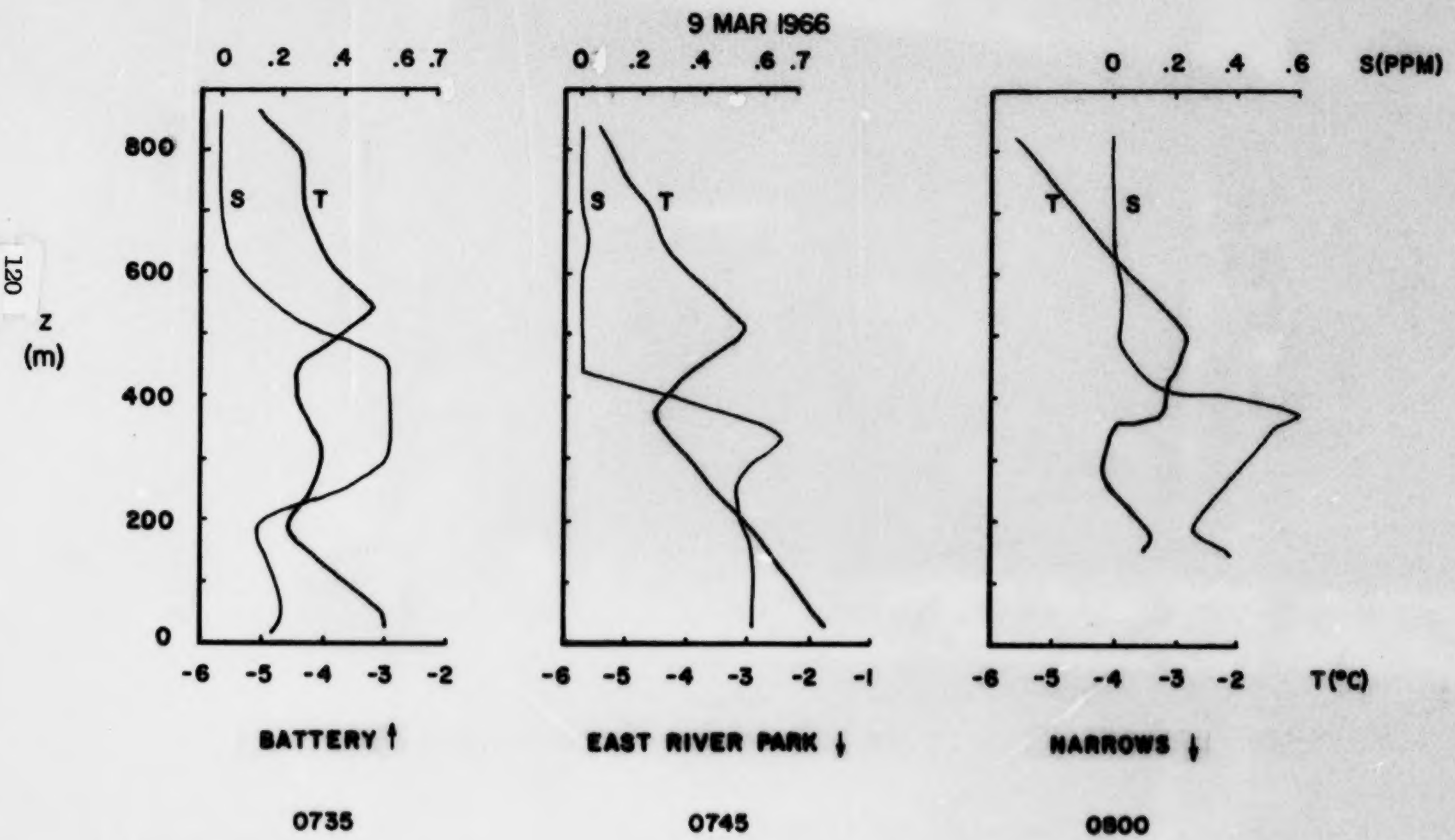
8 MAR 1966

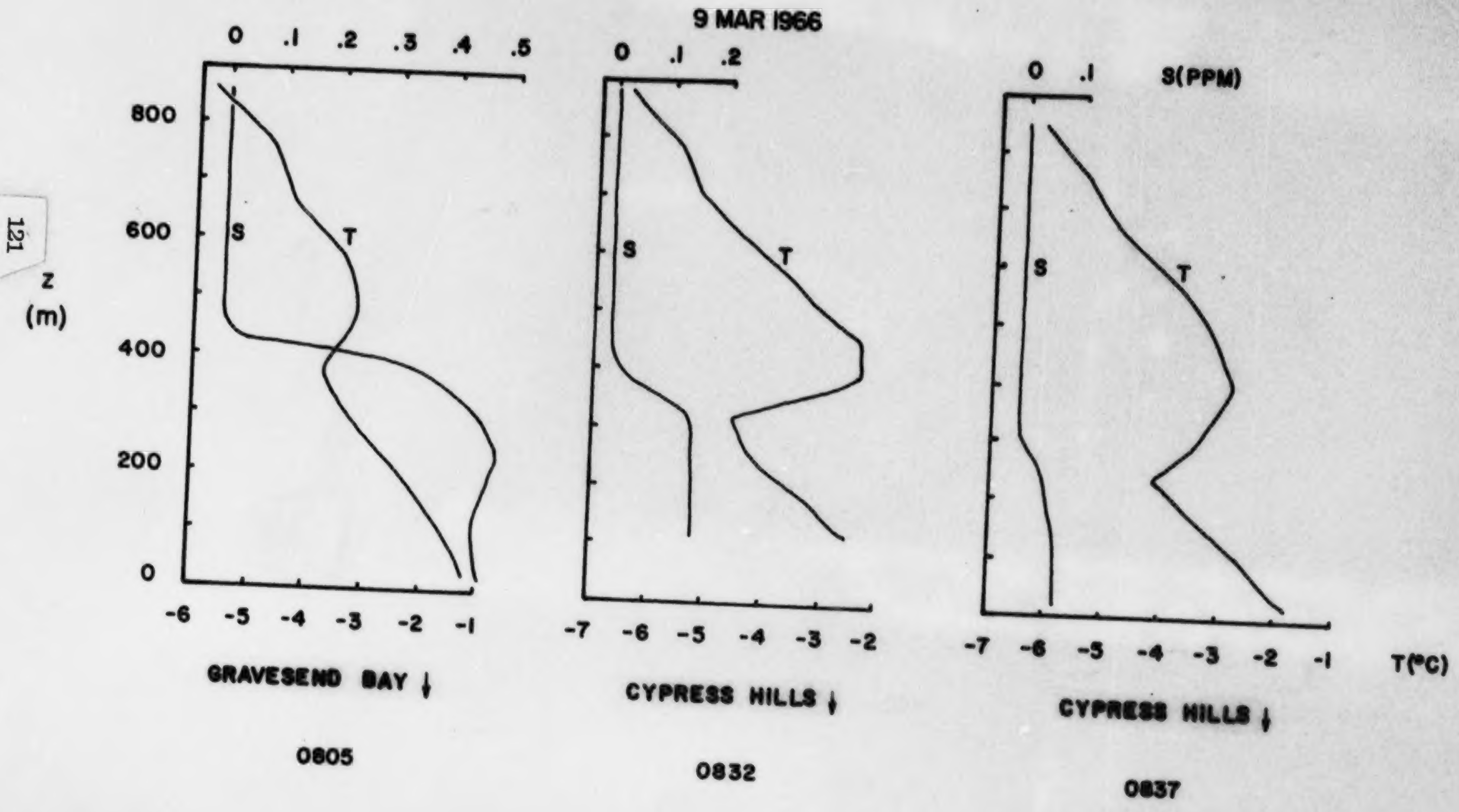


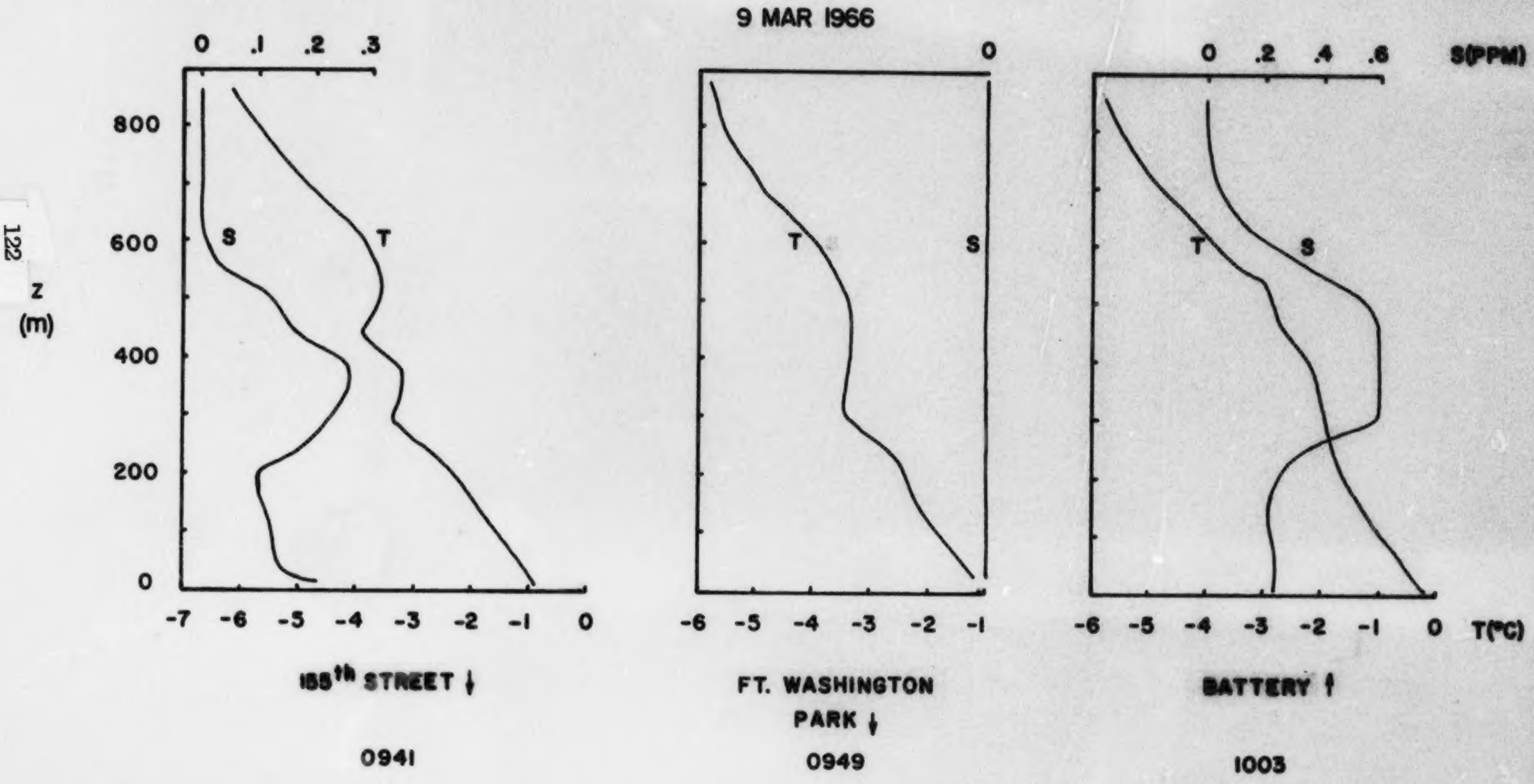
EAST RIVER PARK ↓

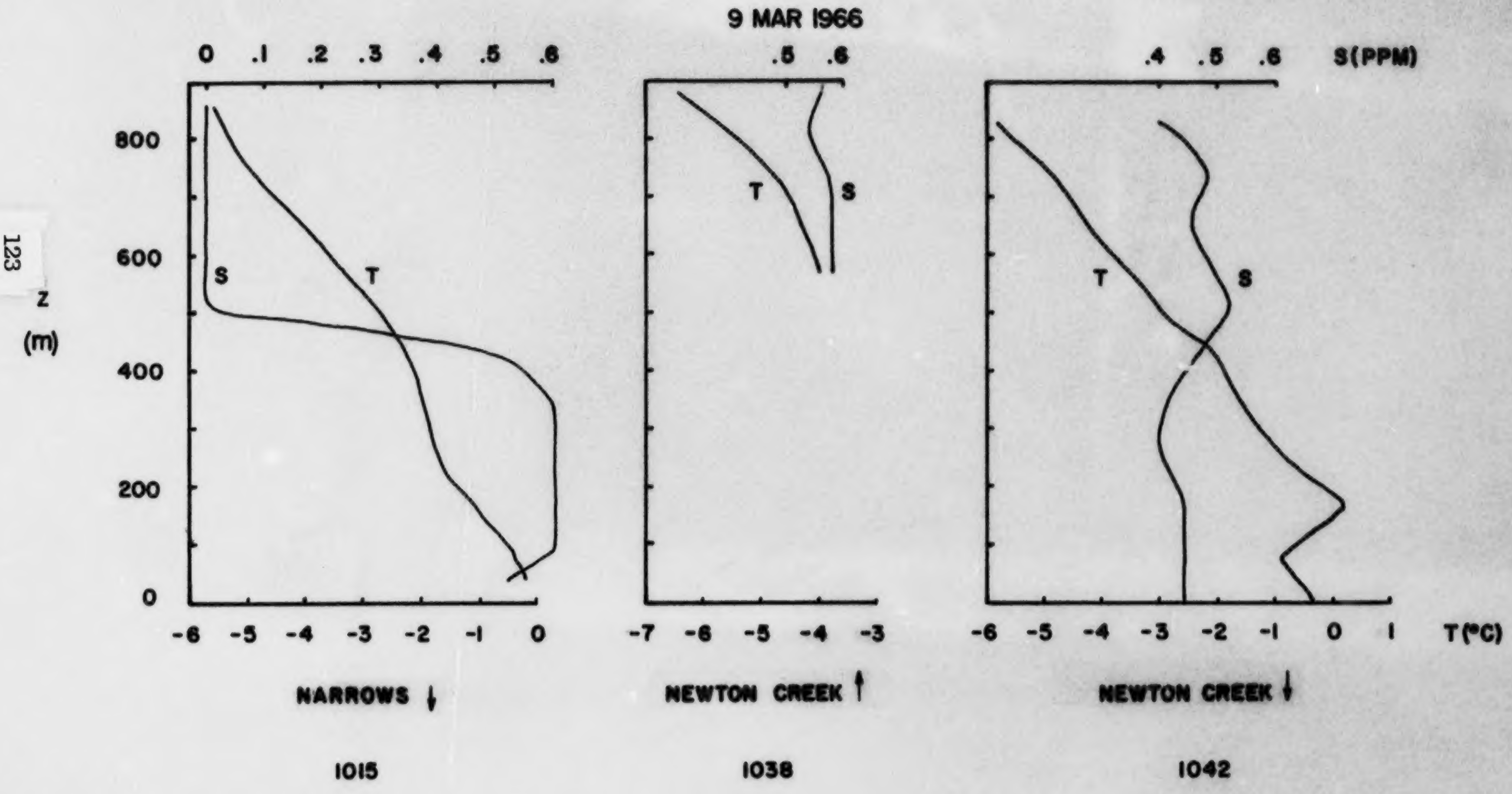
1819


9 MAR 1966
Z
(m)
0
200
400
600
800
S(PPM)
T(°C)
0
.1
.2
.3
-7
-6
-5
-4
-3
S
T
SAWMILL ↑
0702
VAN CORTLAND
PARK ↓
0706
155th STREET ↑
0715
FT. WASHINGTON
PARK ↓
0721

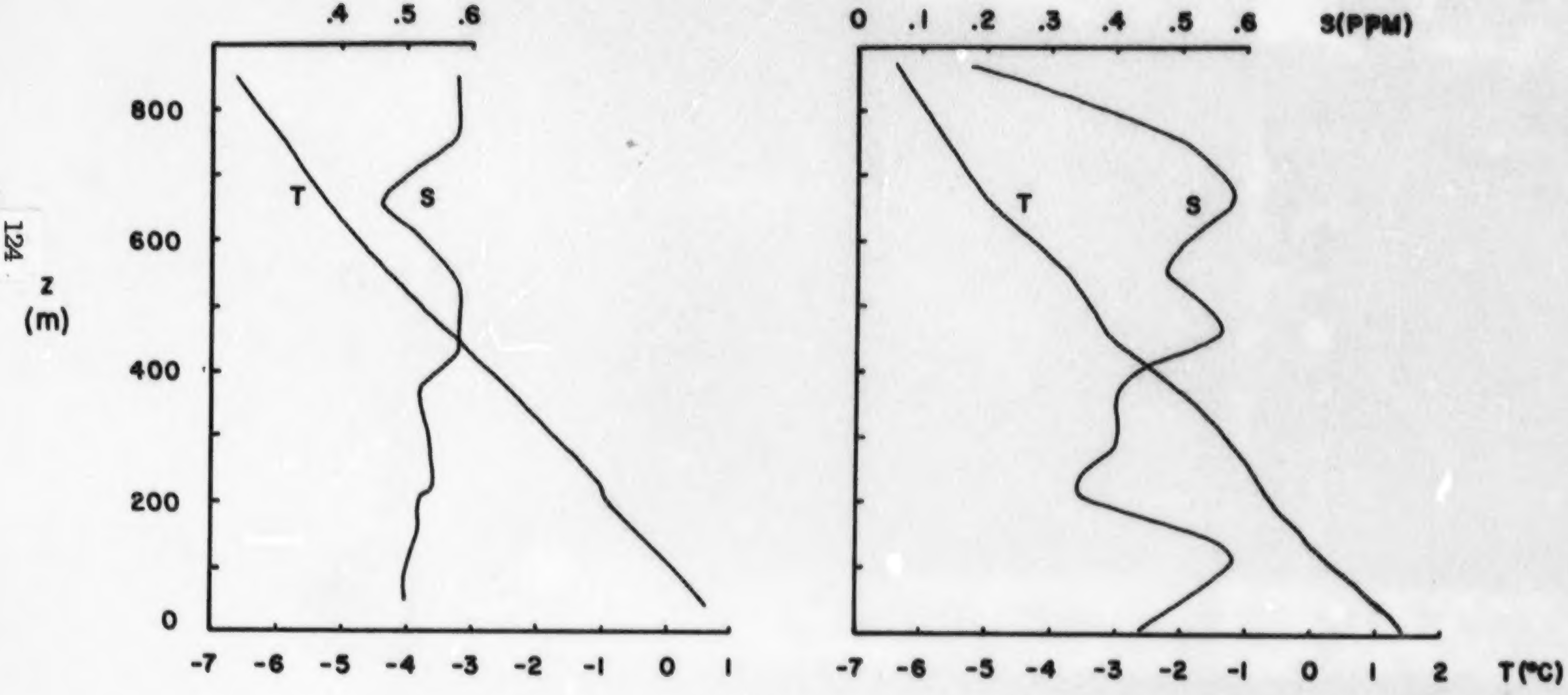

9 MAR 1966
0
.2
.4
.6
.7
S(PPM)
T(°C)
z
(m)
800
600
400
200
0
S
T
-6
-5
-4
-3
-2
-1
BATTERY ↑
0735
EAST RIVER PARK ↓
0745
NARROWS ↓
0800


9 MAR 1966
Z
(m)
800
600
400
200
0
0
.1
.2
.3
.4
.5
S
T
-6
-5
-4
-3
-2
-1
GRAVESEND BAY ↓
0805
0
.1
.2
S
T
-7
-6
-5
-4
-3
-2
CYPRESS HILLS ↓
0832
0
.1
S(PPM)
S
T
-7
-6
-5
-4
-3
-2
-1
T(°C)
CYPRESS HILLS ↓
0837


9 MAR 1966
z
(m)
800
600
400
200
0
0
.1
.2
.3
S
T
-7
-6
-5
-4
-3
-2
-1
0
155th STREET ↓
0941
0
T
S
-6
-5
-4
-3
-2
-1
FT. WASHINGTON
PARK ↓
0949
0
.2
.4
.6
S(PPM)
T
S
-6
-5
-4
-3
-2
-1
0
T(°C)
BATTERY ↑
1003


9 MAR 1966
z
(m)
0
200
400
600
800
0
.1
.2
.3
.4
.5
.6
S
T
-6
-5
-4
-3
-2
-1
0
NARROWS ↓
1015
.5
.6
T
S
-7
-6
-5
-4
-3
NEWTON CREEK ↑
1038
.4
.5
.6
S(PPM)
T
S
-6
-5
-4
-3
-2
-1
0
1
T(°C)
NEWTON CREEK ↓
1042

9 MAR 1966



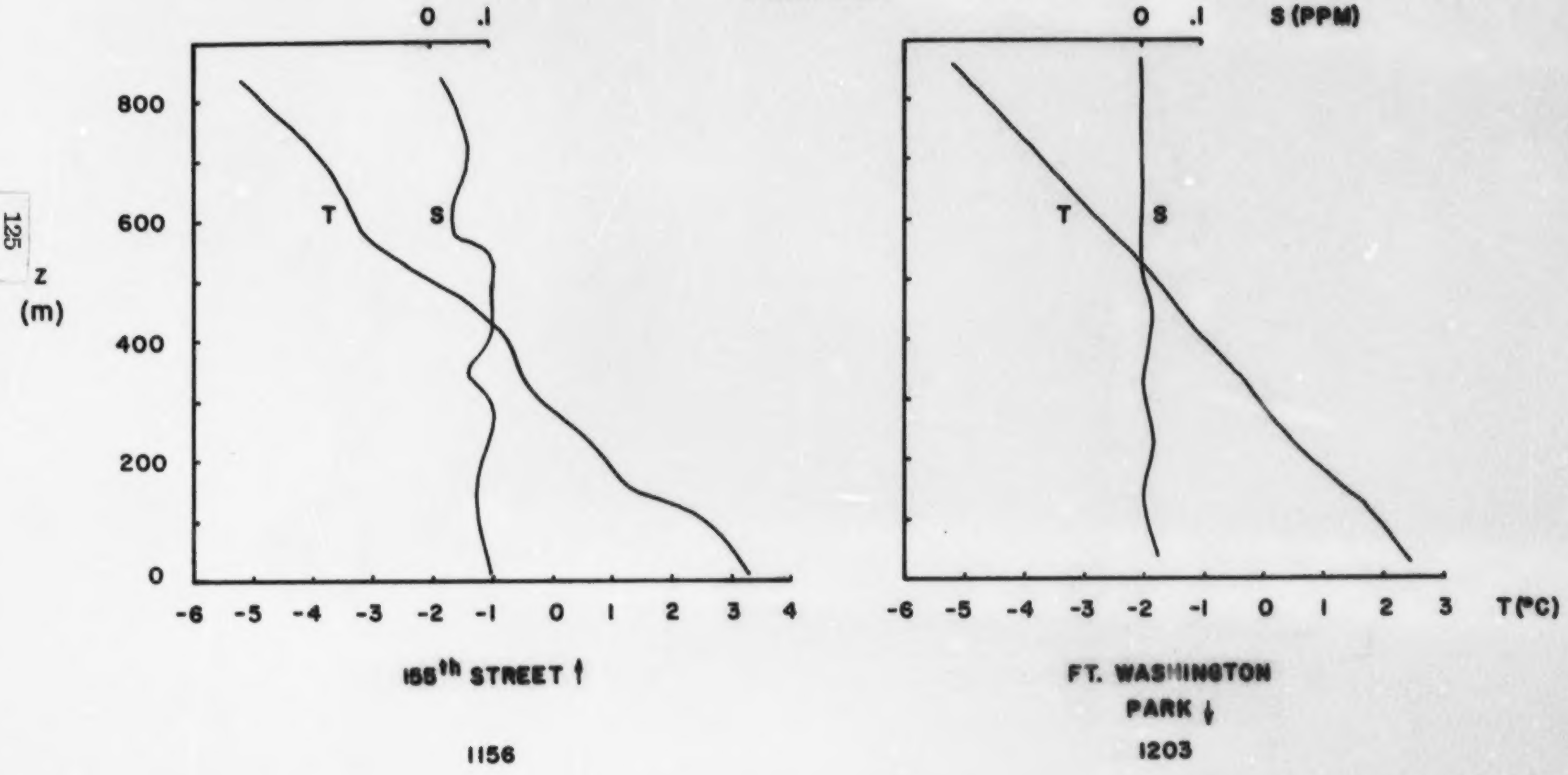
CYPRESS HILLS ↑

1049

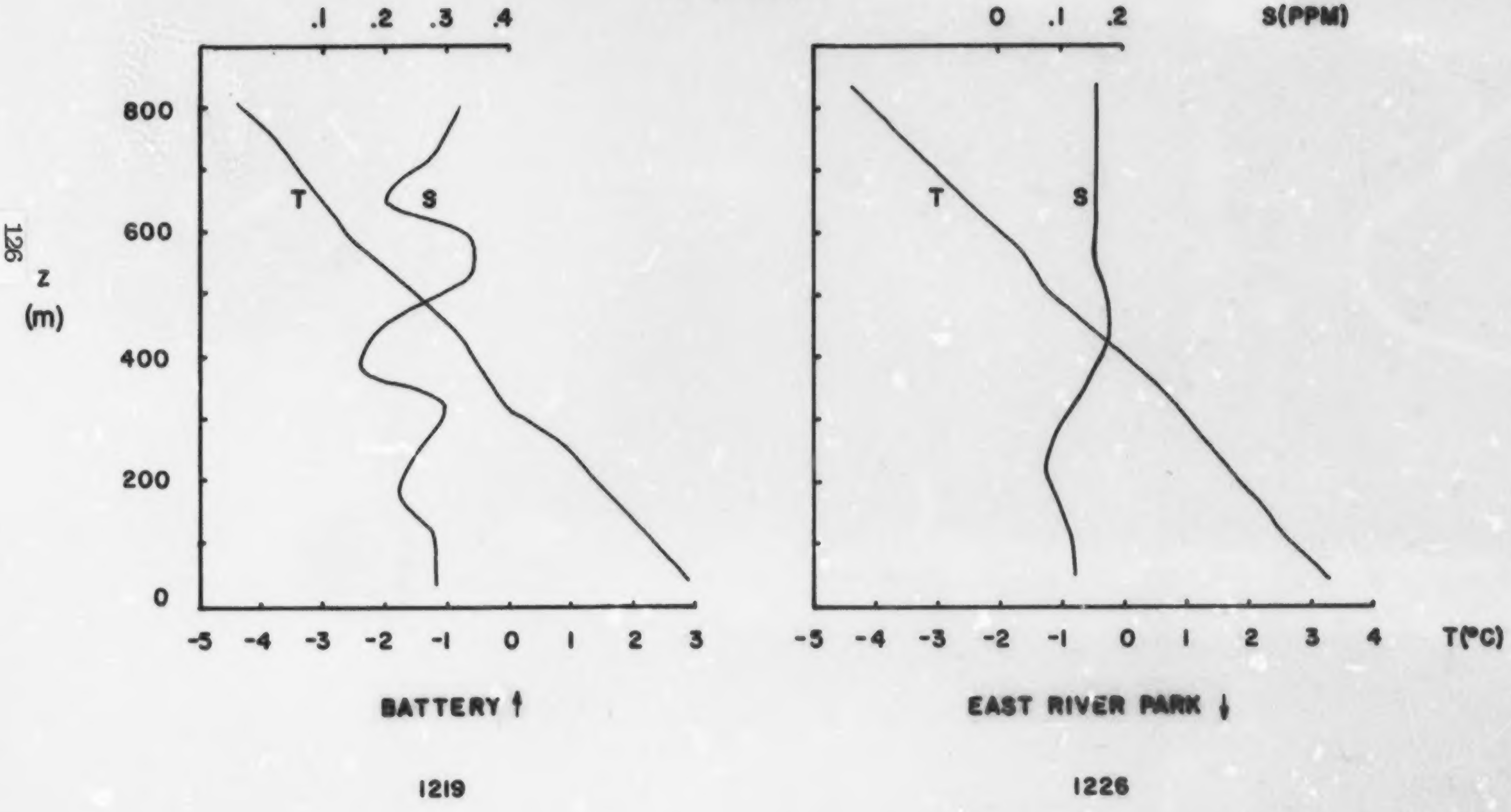
CYPRESS HILLS ↓

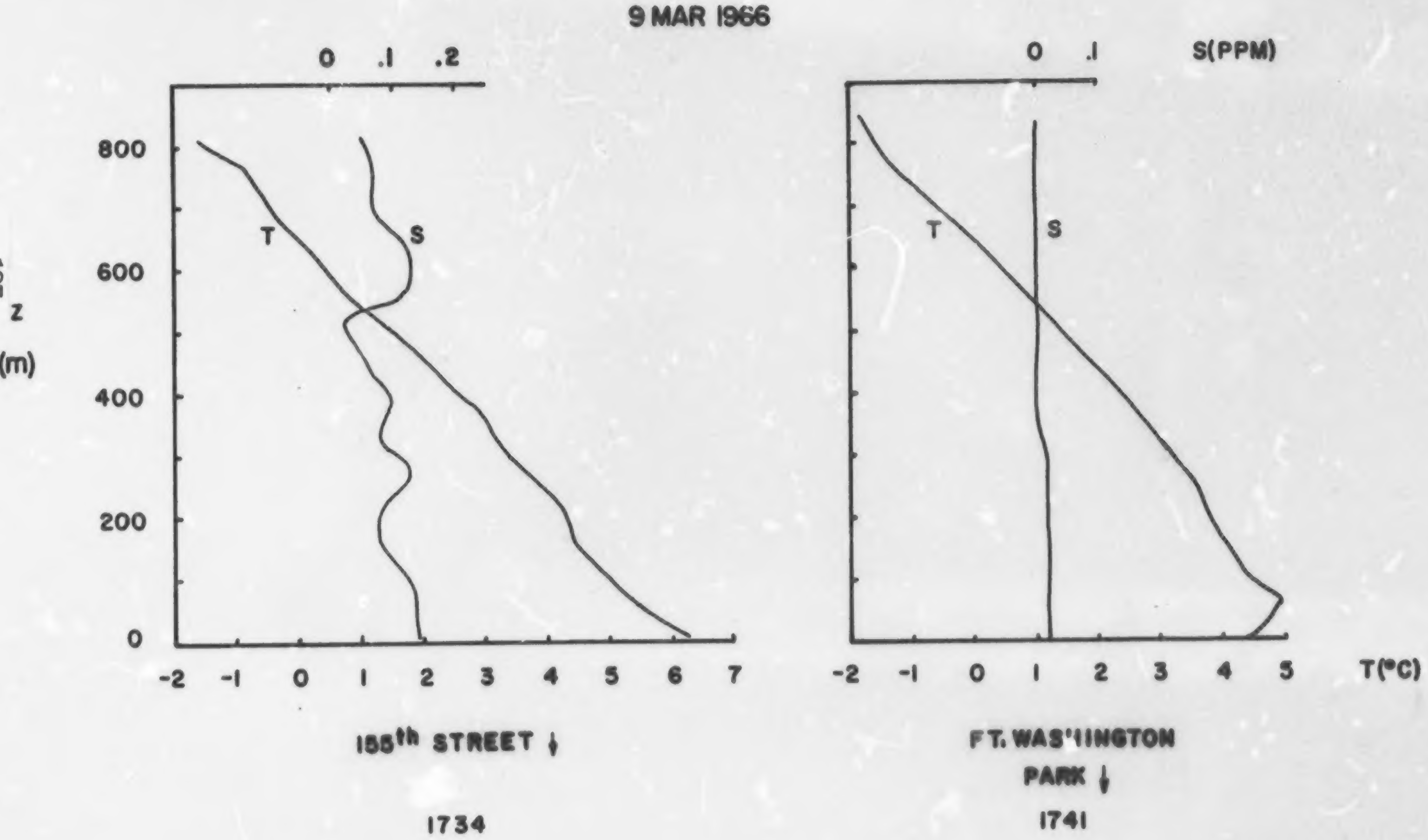
1057

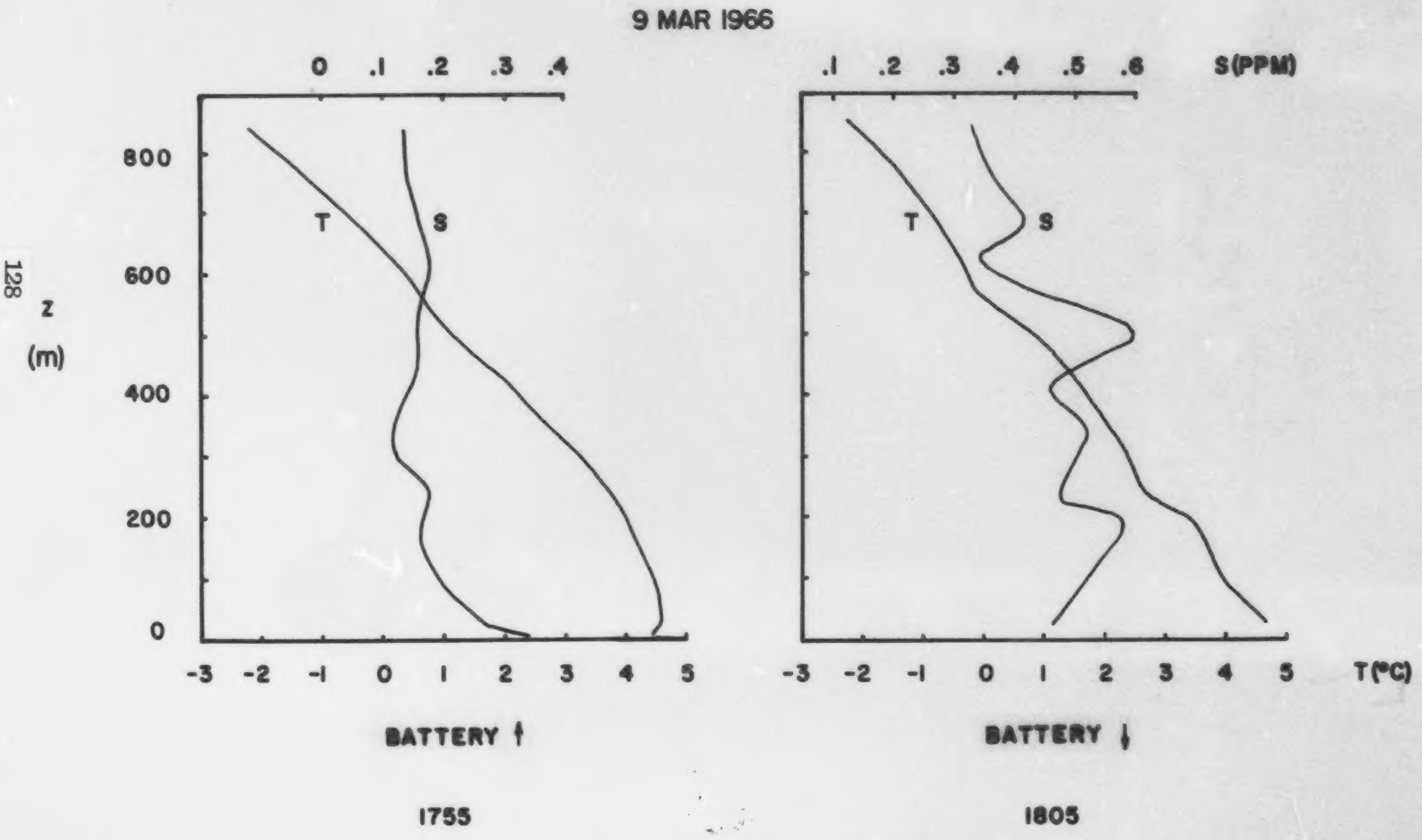
9 MAR 1966

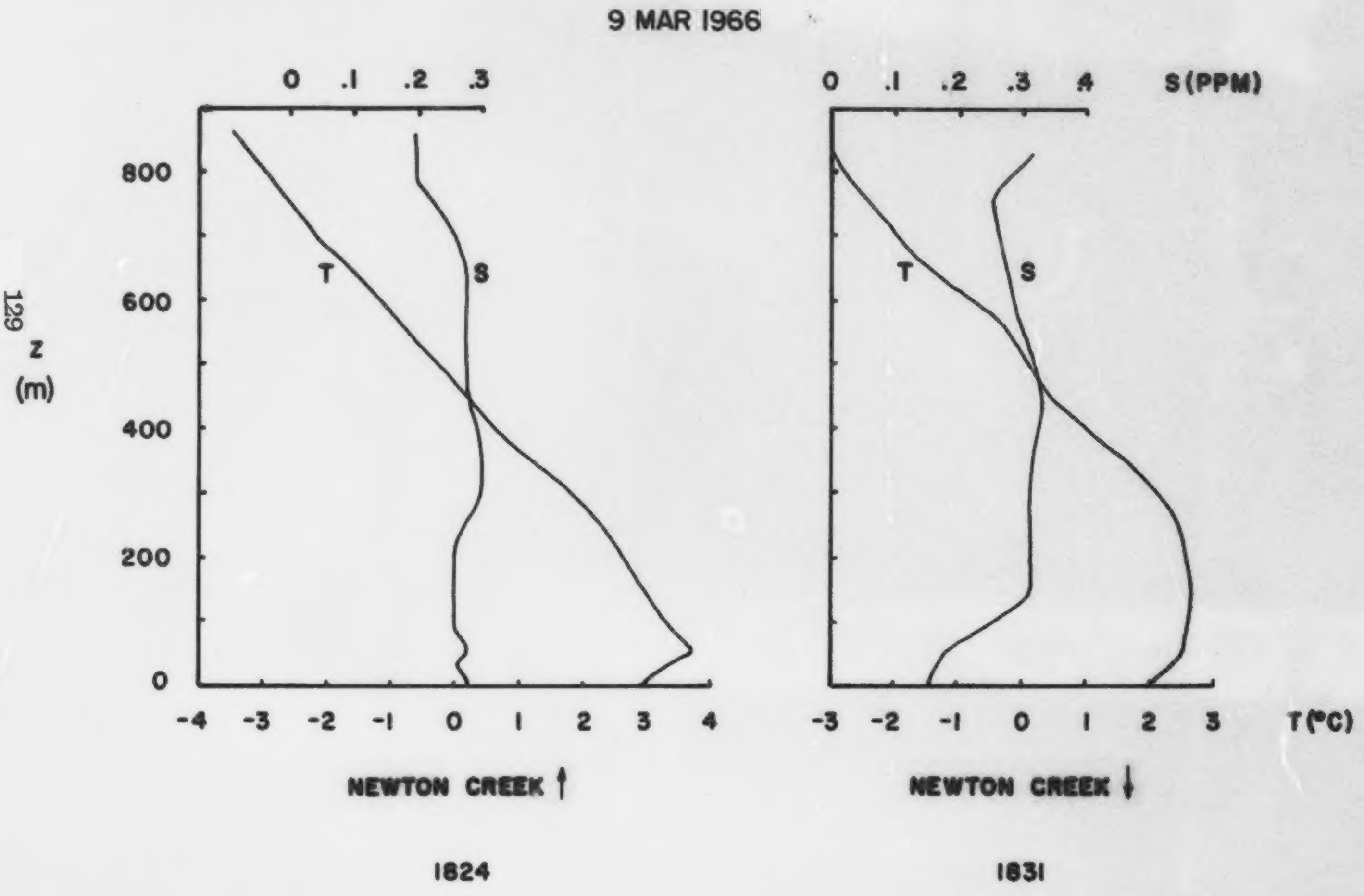

z
(m)
800
600
400
200
0
0
.1
T
S
-6
-5
-4
-3
-2
-1
0
1
2
3
4
155th STREET ↑
1156
0
.1
S (PPM)
T
S
-6
-5
-4
-3
-2
-1
0
1
2
3
T (°C)
FT. WASHINGTON
PARK ↓
1203

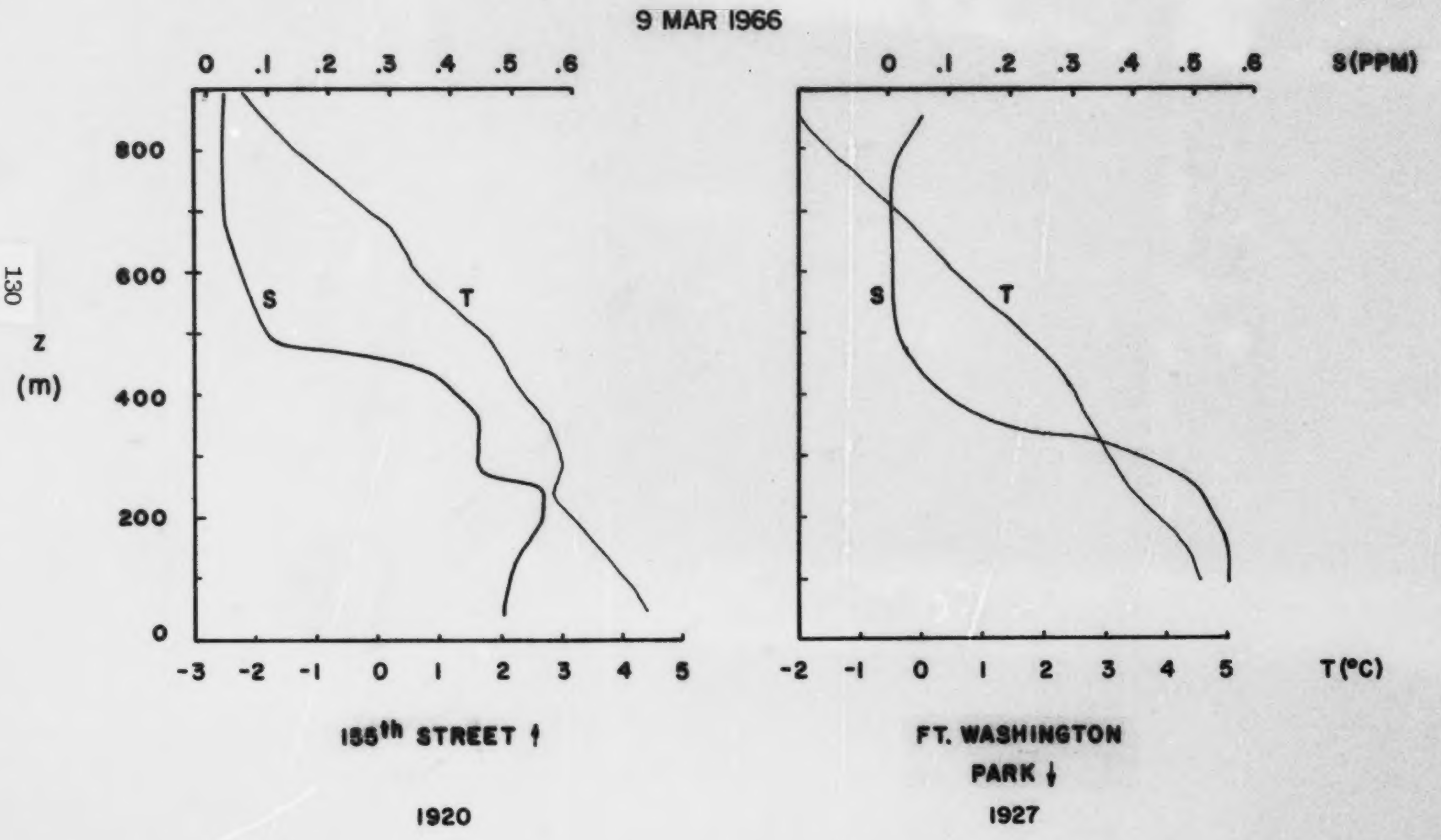
9 MAR 1966

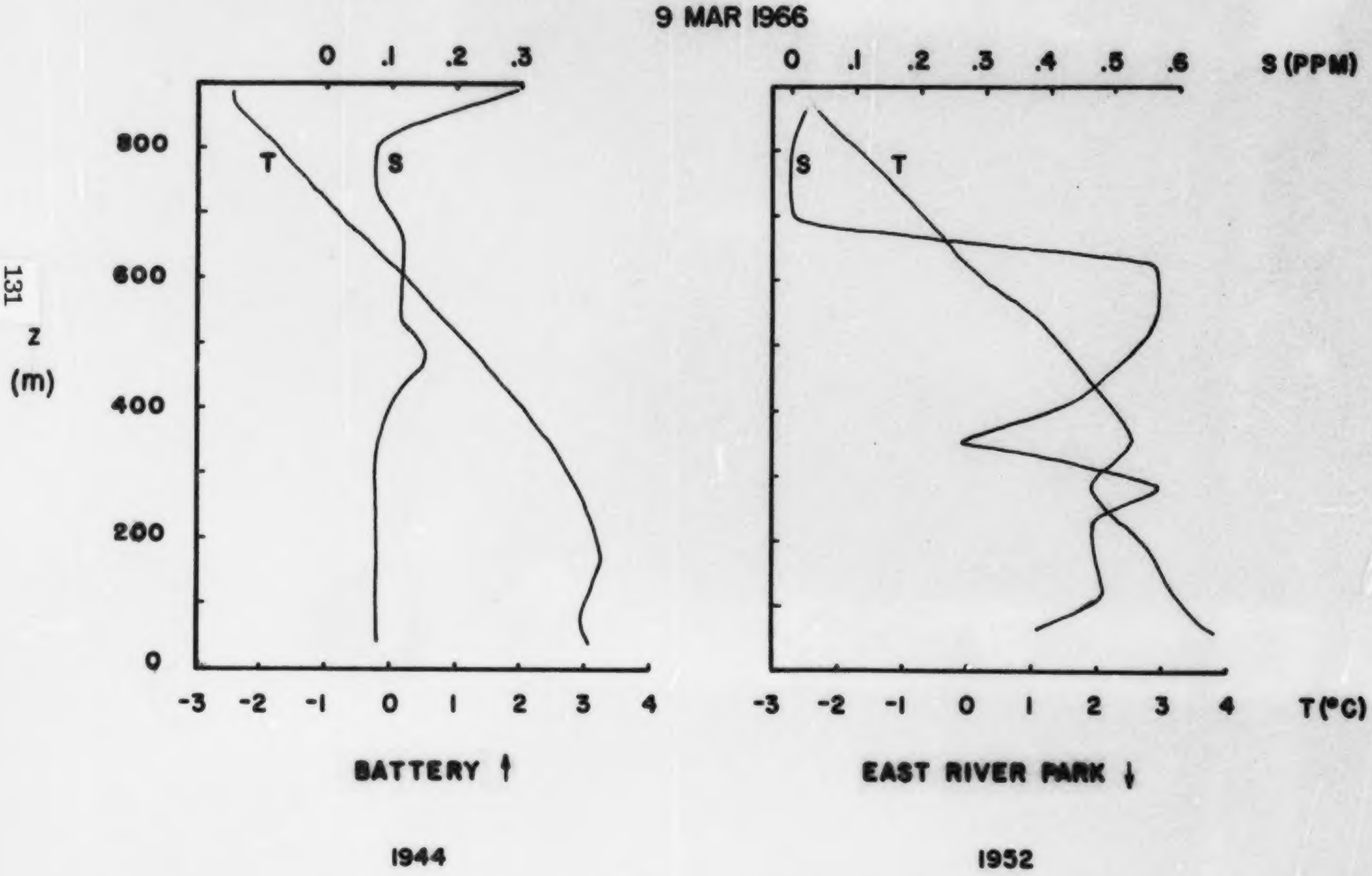

z
(m)
800
600
400
200
0
.1
.2
.3
.4
T
S
-5
-4
-3
-2
-1
0
1
2
3
BATTERY ↑
1219
0
.1
.2
S(PPM)
T
S
-5
-4
-3
-2
-1
0
1
2
3
4
T(°C)
EAST RIVER PARK ↓
1226

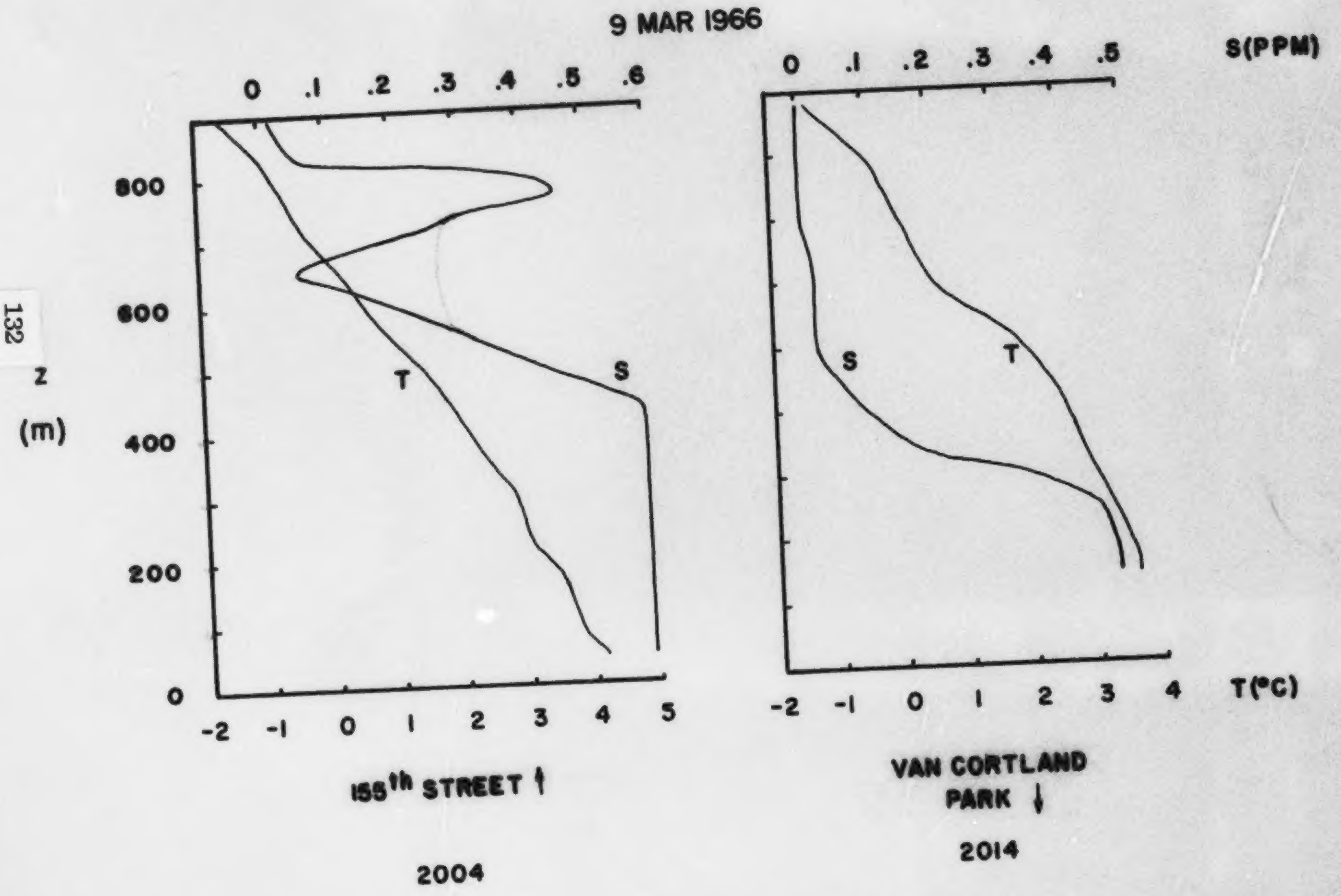

9 MAR 1966
0
.1
.2
0
.1
S(PPM)
z
(m)
800
600
400
200
0
T
S
T
S
-2
-1
0
1
2
3
4
5
6
7
-2
-1
0
1
2
3
4
5
T(°C)
155th STREET ↓
1734
FT. WASHINGTON
PARK ↓
1741

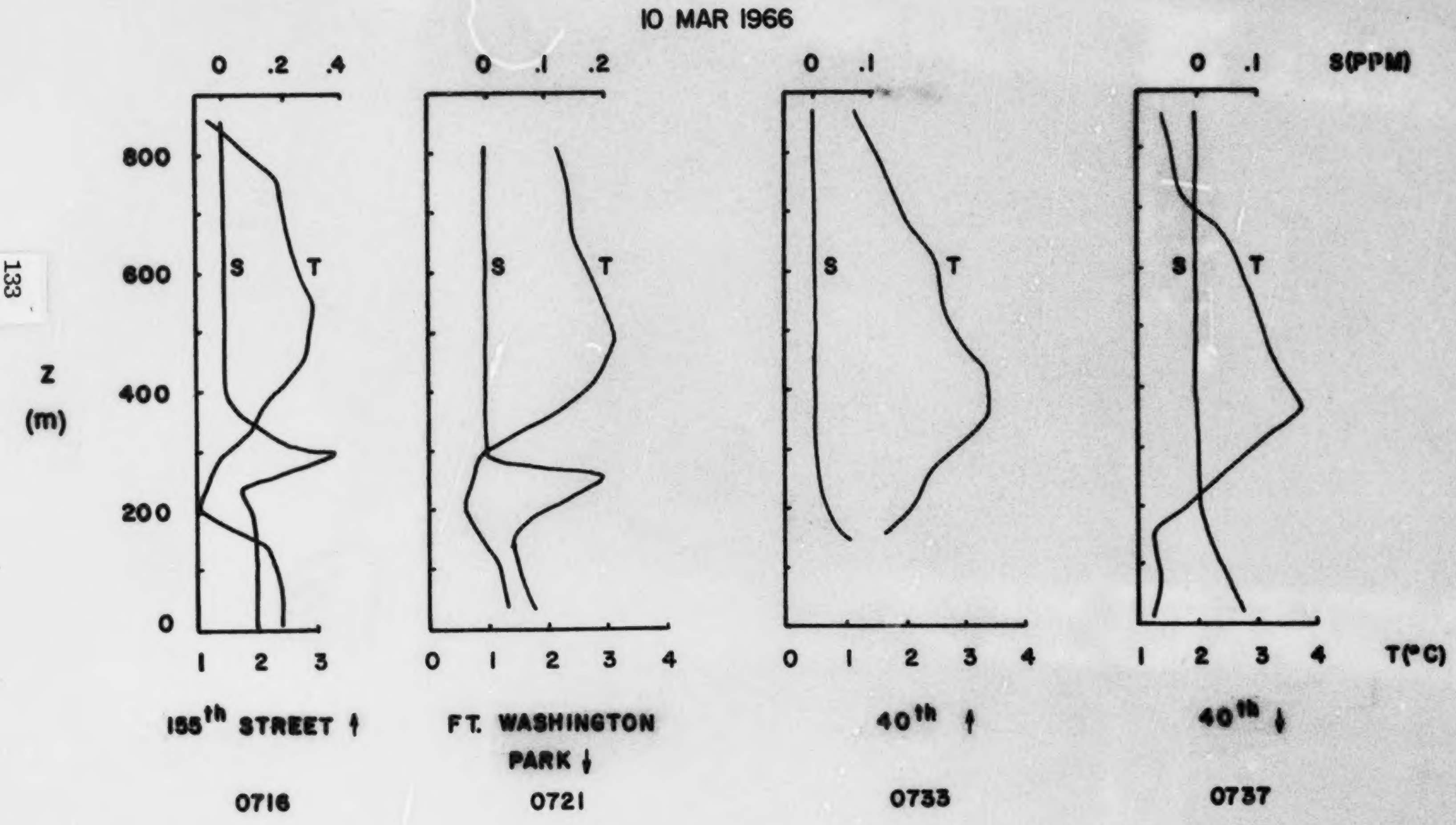

9 MAR 1966
0
.1
.2
.3
.4
.1
.2
.3
.4
.5
.6
S(PPM)
z
(m)
800
600
400
200
0
T
S
T
S
-3
-2
-1
0
1
2
3
4
5
-3
-2
-1
0
1
2
3
4
5
T(°C)
BATTERY ↑
BATTERY ↓
1755
1805

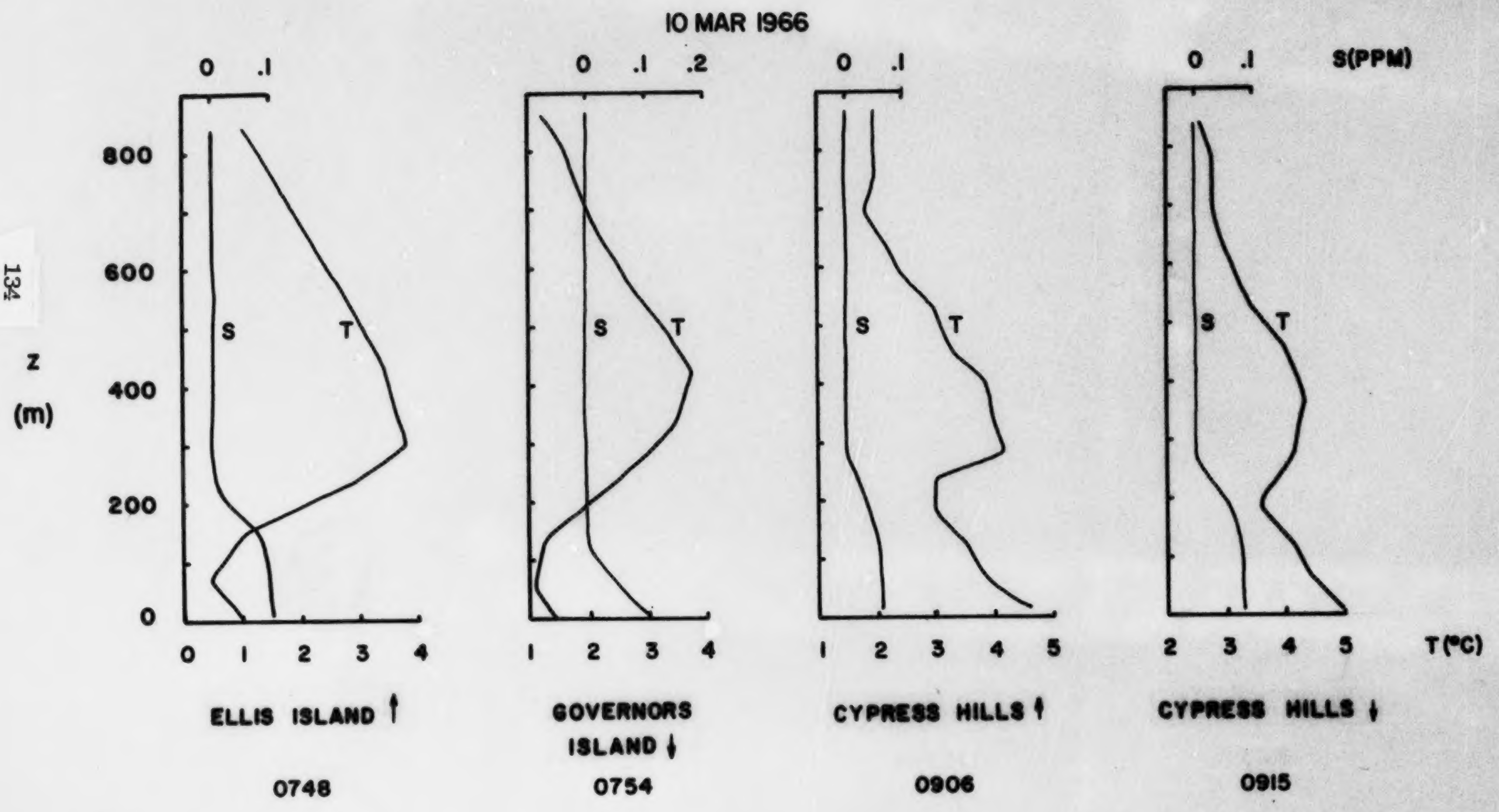

9 MAR 1966
0
.1
.2
.3
z
(m)
800
600
400
200
0
T
S
-4
-3
-2
-1
0
1
2
3
4
NEWTON CREEK ↑
1824
0
.1
.2
.3
.4
S(PPM)
T
S
-3
-2
-1
0
1
2
3
T(°C)
NEWTON CREEK ↓
1831

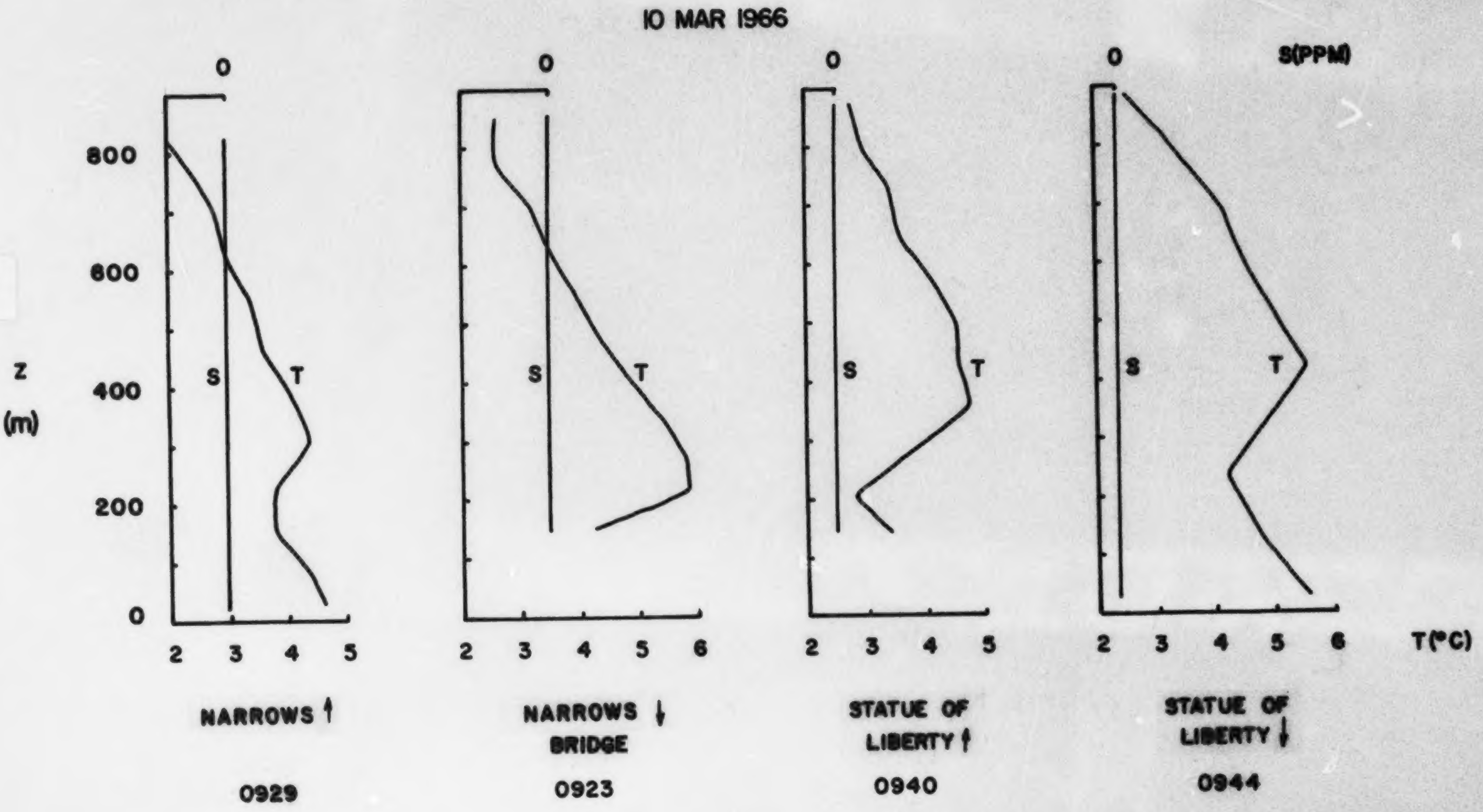

9 MAR 1966
0
.1
.2
.3
.4
.5
.6
S(PPM)
z
(m)
800
600
400
200
0
S
T
-3
-2
-1
0
1
2
3
4
5
-2
-1
0
1
2
3
4
5
T(°C)
155th STREET ↑
1920
FT. WASHINGTON
PARK ↓
1927

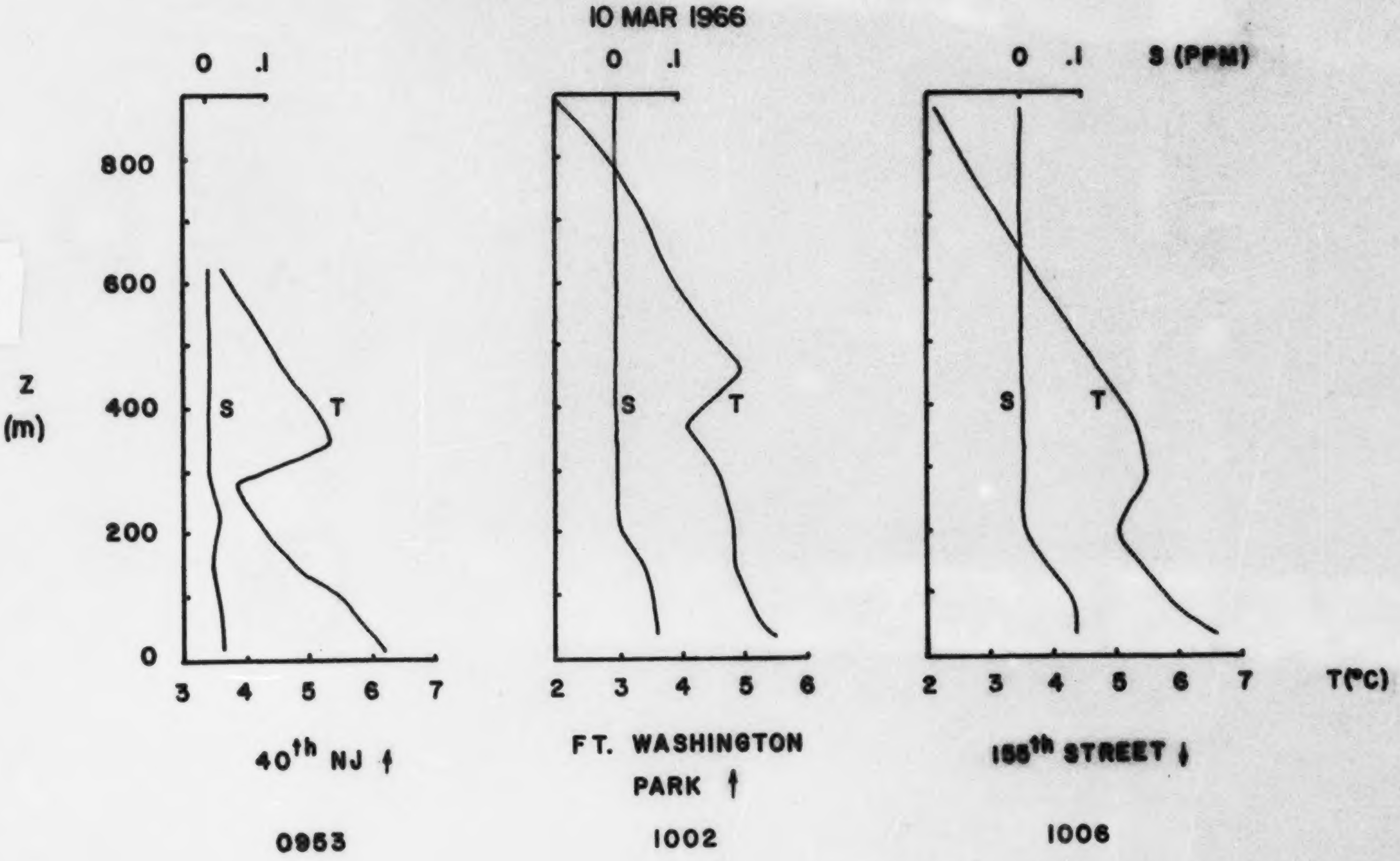

9 MAR 1966
0
.1
.2
.3
0
.1
.2
.3
.4
.5
.6
S (PPM)
800
600
400
200
0
z
(m)
T
S
S
T
-3
-2
-1
0
1
2
3
4
-3
-2
-1
0
1
2
3
4
T(°C)
BATTERY ↑
EAST RIVER PARK ↓
1944
1952


9 MAR 1966
S(PPM)
0
.1
.2
.3
.4
.5
.6
Z
(m)
800
600
400
200
0
T
S
-2
-1
0
1
2
3
4
5
T(°C)
155th STREET ↑
2004
VAN CORTLAND
PARK ↓
2014

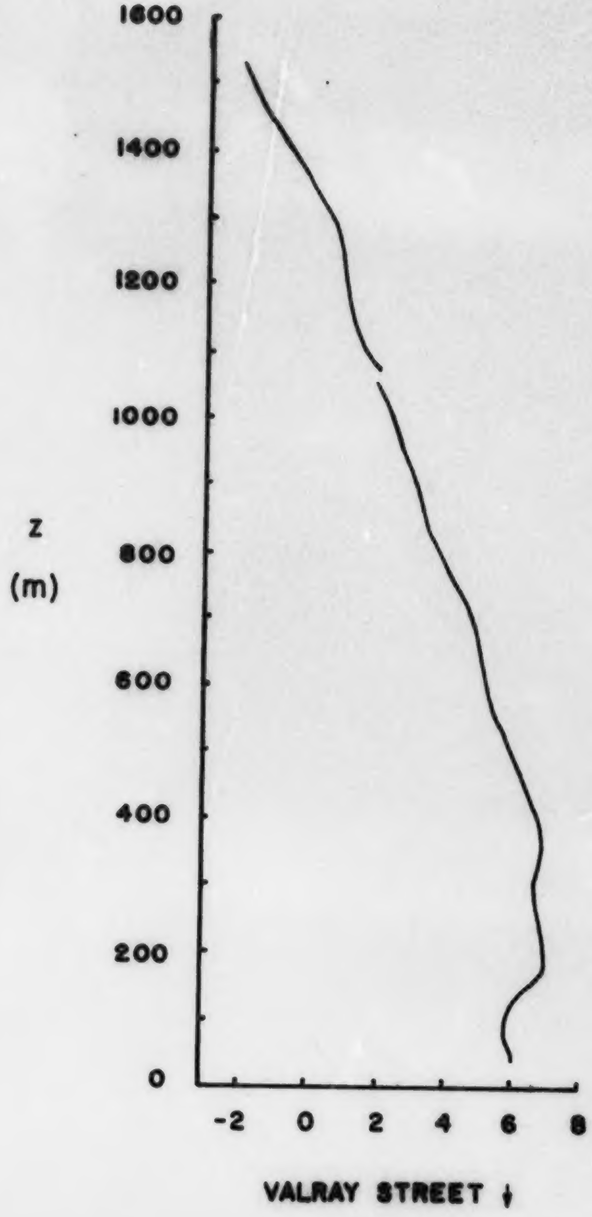
10 MAR 1966
S(PPM)
0
.2
.4
0
.1
.2
0
.1
0
.1
Z
(m)
800
600
400
200
0
S
T
T(°C)
1
2
3
0
1
2
3
4
155th STREET ↑
FT. WASHINGTON
PARK ↓
40th ↑
40th ↓
0716
0721
0733
0737


10 MAR 1966
0
.1
0
.1
.2
0
.1
0
.1
S(PPM)
800
600
400
200
0
Z
(m)
S
T
S
T
S
T
S
T
0
1
2
3
4
1
2
3
4
1
2
3
4
5
2
3
4
5
T(°C)
ELLIS ISLAND ↑
GOVERNORS ISLAND ↓
CYPRESS HILLS ↑
CYPRESS HILLS ↓
0748
0754
0906
0915

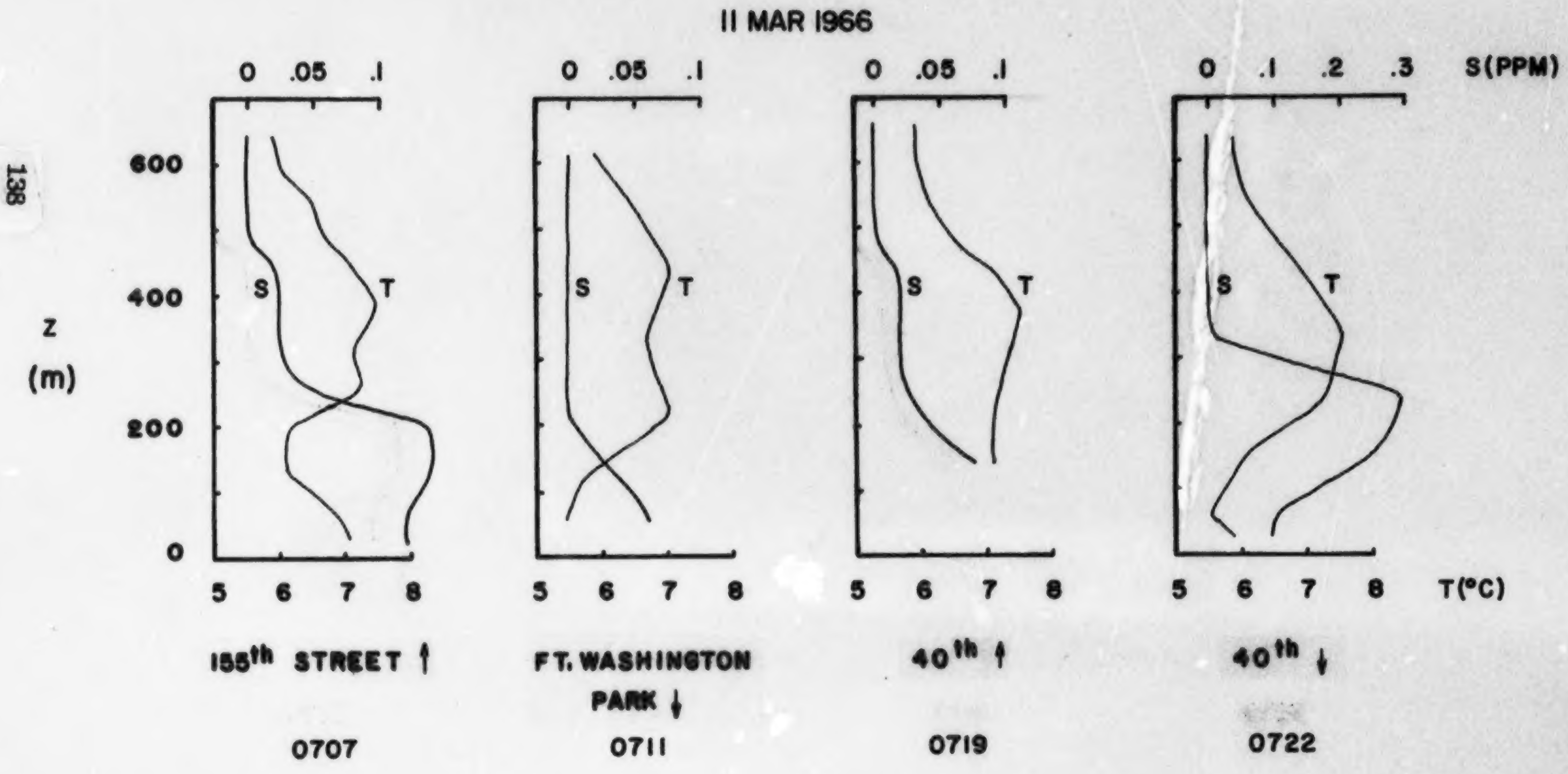

10 MAR 1966
Z
(m)
800
600
400
200
0
0
S(PPM)
S
T
2
3
4
5
6
T(°C)
NARROWS ↑
0929
NARROWS ↓
BRIDGE
0923
STATUE OF
LIBERTY ↑
0940
STATUE OF
LIBERTY ↓
0944

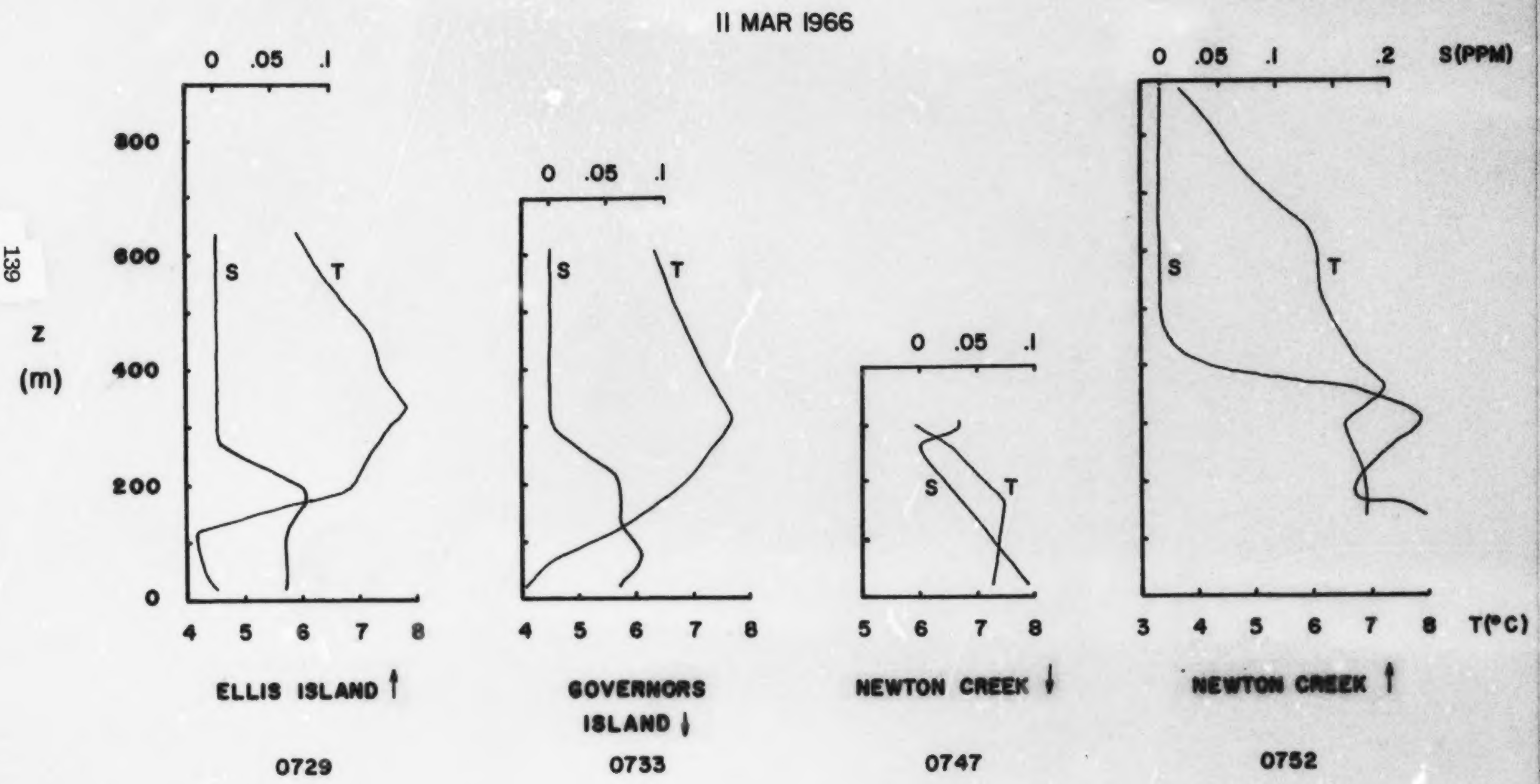

10 MAR 1966
0
.1
S (PPM)
Z
(m)
800
600
400
200
0
S
T
3
4
5
6
7
2
T(°C)
40th NJ ↑
FT. WASHINGTON
PARK ↑
155th STREET ↓
0953
1002
1006

11 MAR 1966

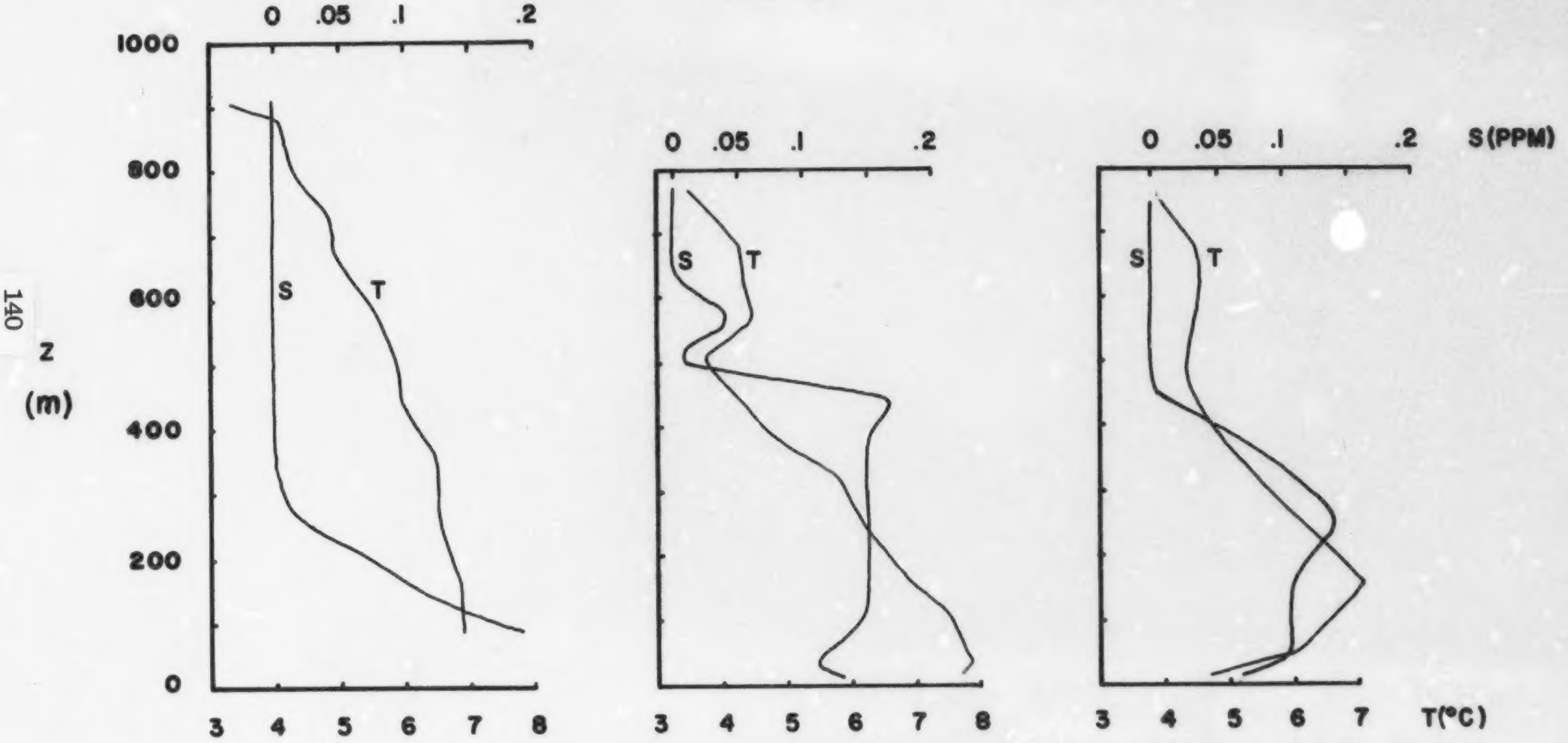


0702


II MAR 1966
S(PPM)
0
.05
.1
.2
.3
T(°C)
5
6
7
8
Z
(m)
600
400
200
0
S
T
155th STREET ↑
0707
FT. WASHINGTON
PARK ↓
0711
40th ↑
0719
40th ↓
0722


II MAR 1966
Z
(m)
800
600
400
200
0
0 .05 .1
0 .05 .1
0 .05 .1
0 .05 .1 .2 S(PPM)
S
T
4 5 6 7 8
4 5 6 7 8
5 6 7 8
3 4 5 6 7 8 T(°C)
ELLIS ISLAND ↑
0729
GOVERNORS ISLAND ↓
0733
NEWTON CREEK ↓
0747
NEWTON CREEK ↑
0752

11 MAR 1966



CYPRESS HILLS ↓

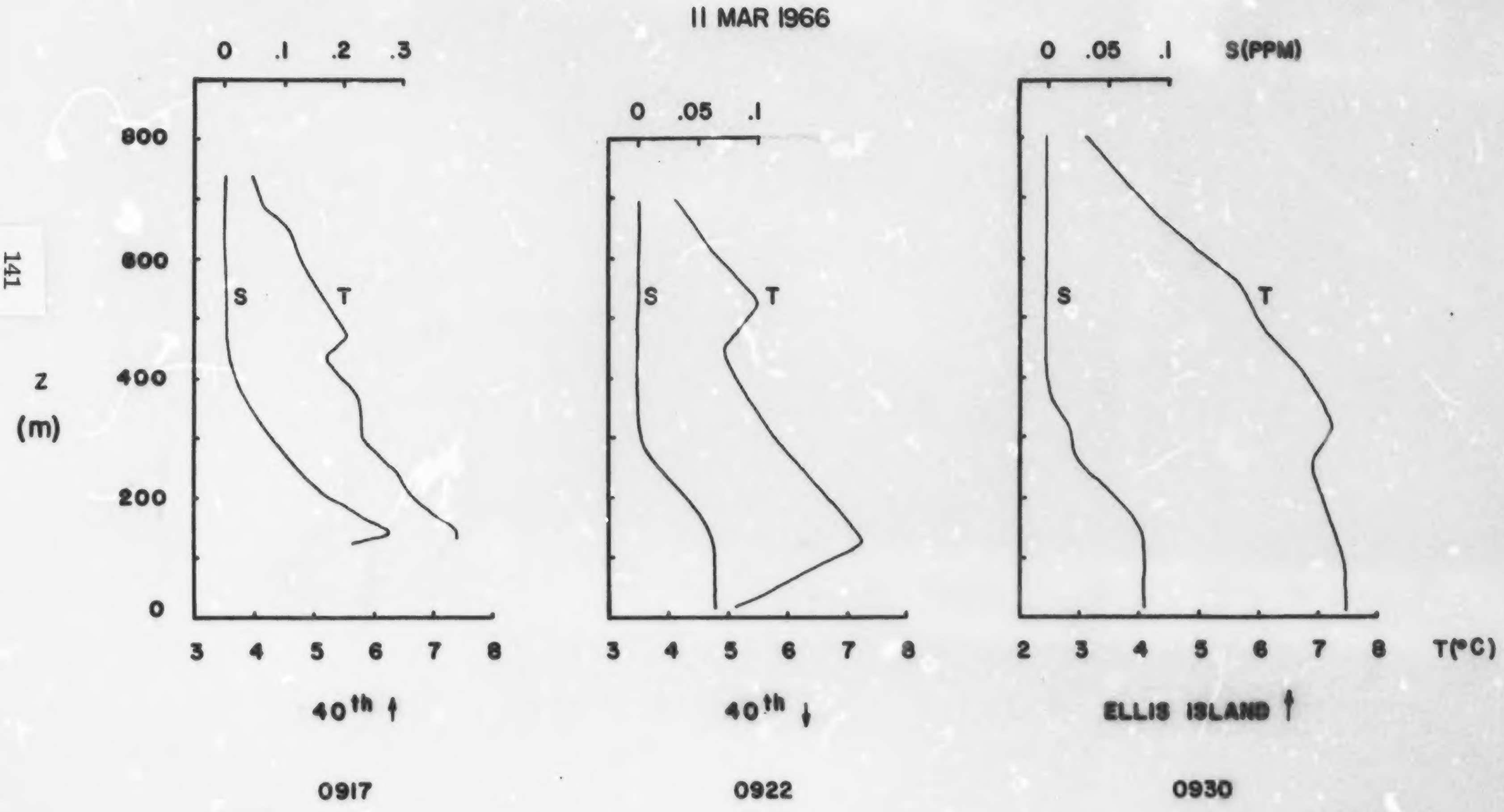
0757

155th STREET ↑

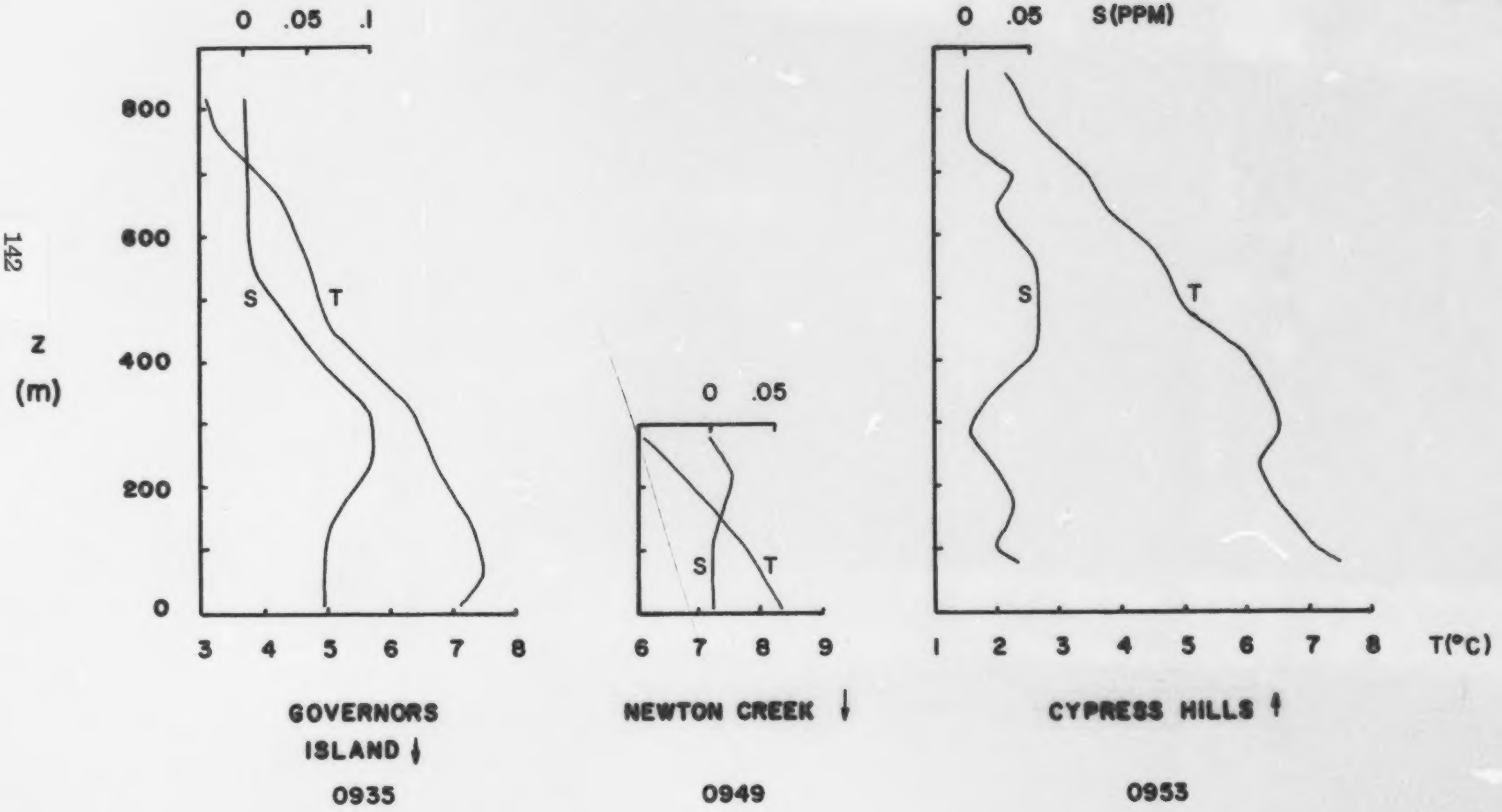
0905

FT. WASHINGTON
PARK ↓

0910

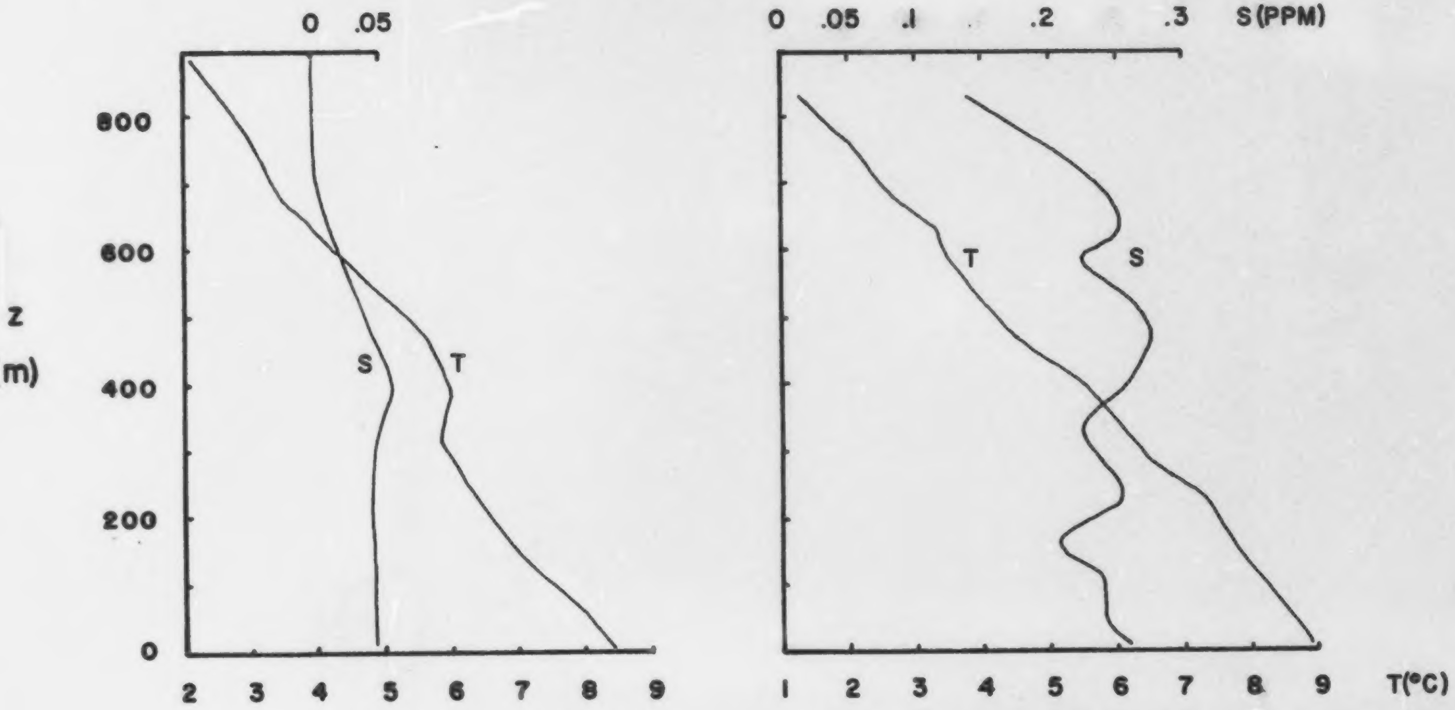

11 MAR 1966
0
.1
.2
.3
0
.05
.1
0
.05
.1
S(PPM)
z
(m)
800
600
400
200
0
S
T
S
T
S
T
3
4
5
6
7
8
3
4
5
6
7
8
2
3
4
5
6
7
8
T(°C)
40th ↑
40th ↓
ELLIS ISLAND ↑
0917
0922
0930

11 MAR 1966



Z
(m)
0
200
400
600
800
0
.05
.1
S
T
3
4
5
6
7
8
GOVERNORS
ISLAND ↓
0935
0
.05
S
T
6
7
8
9
NEWTON CREEK ↓
0949
0
.05
S(PPM)
S
T
1
2
3
4
5
6
7
8
T(°C)
CYPRESS HILLS ↑
0953

11 MAR 1966

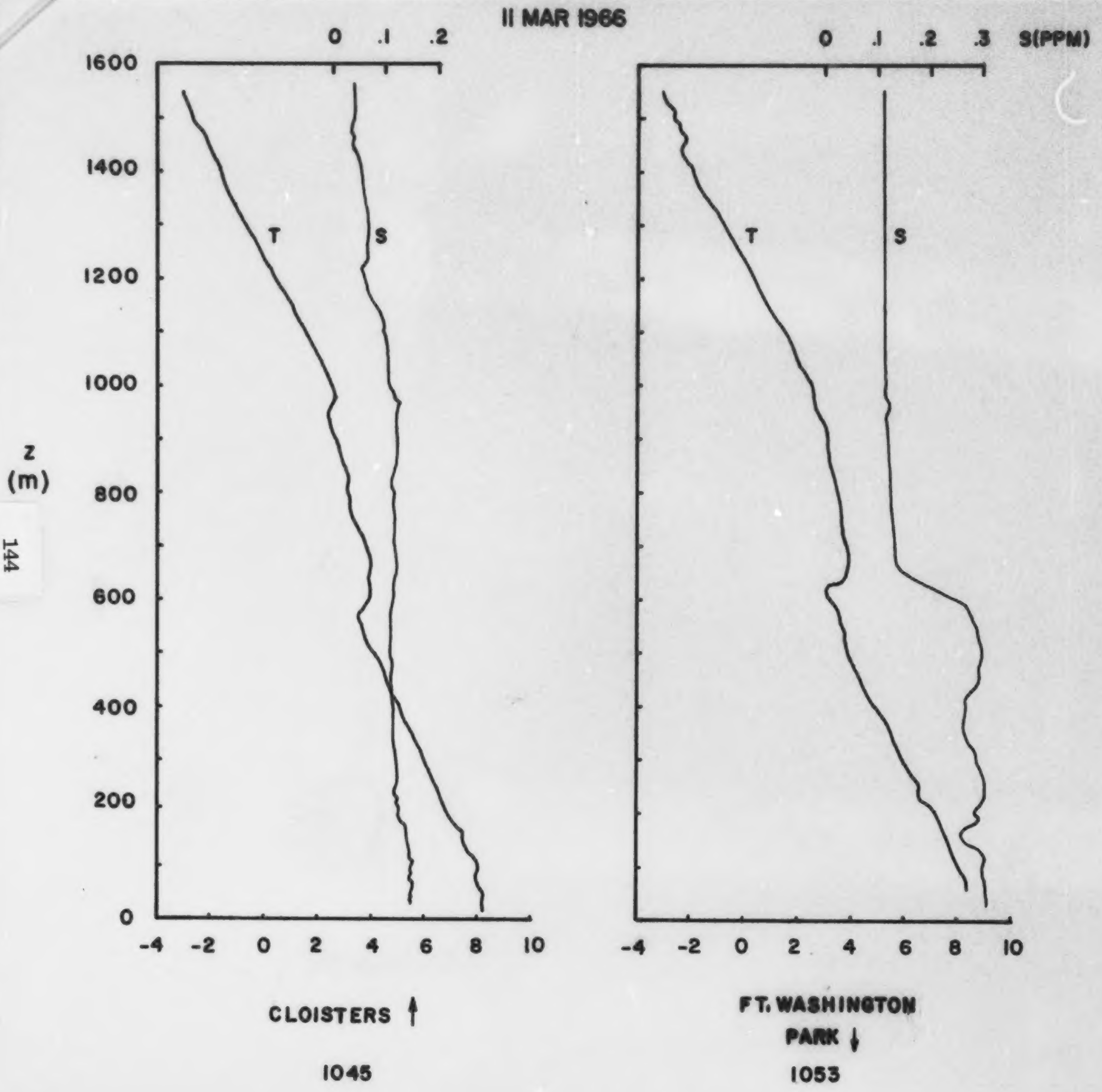


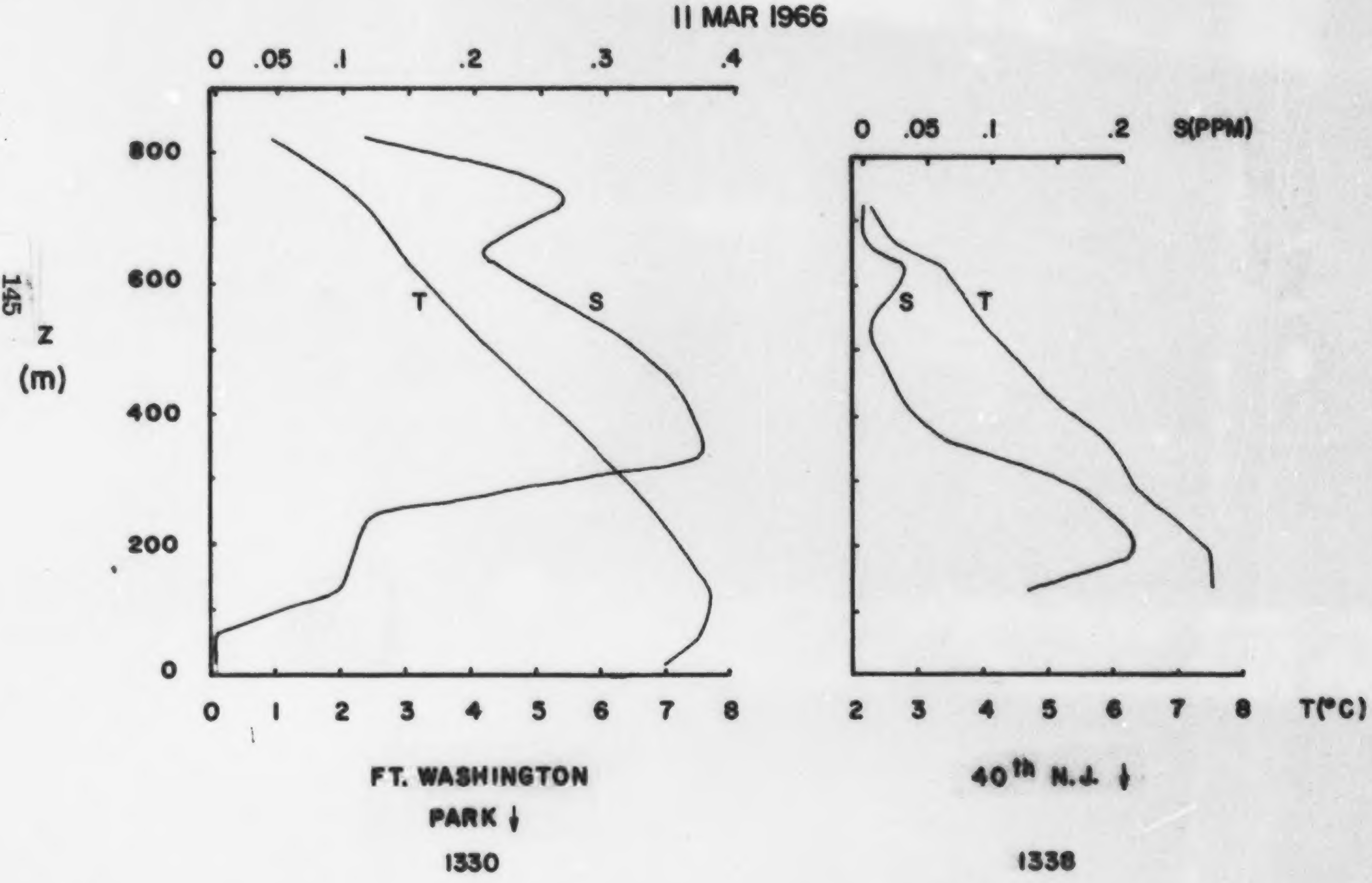
CYPRESS HILLS ↓

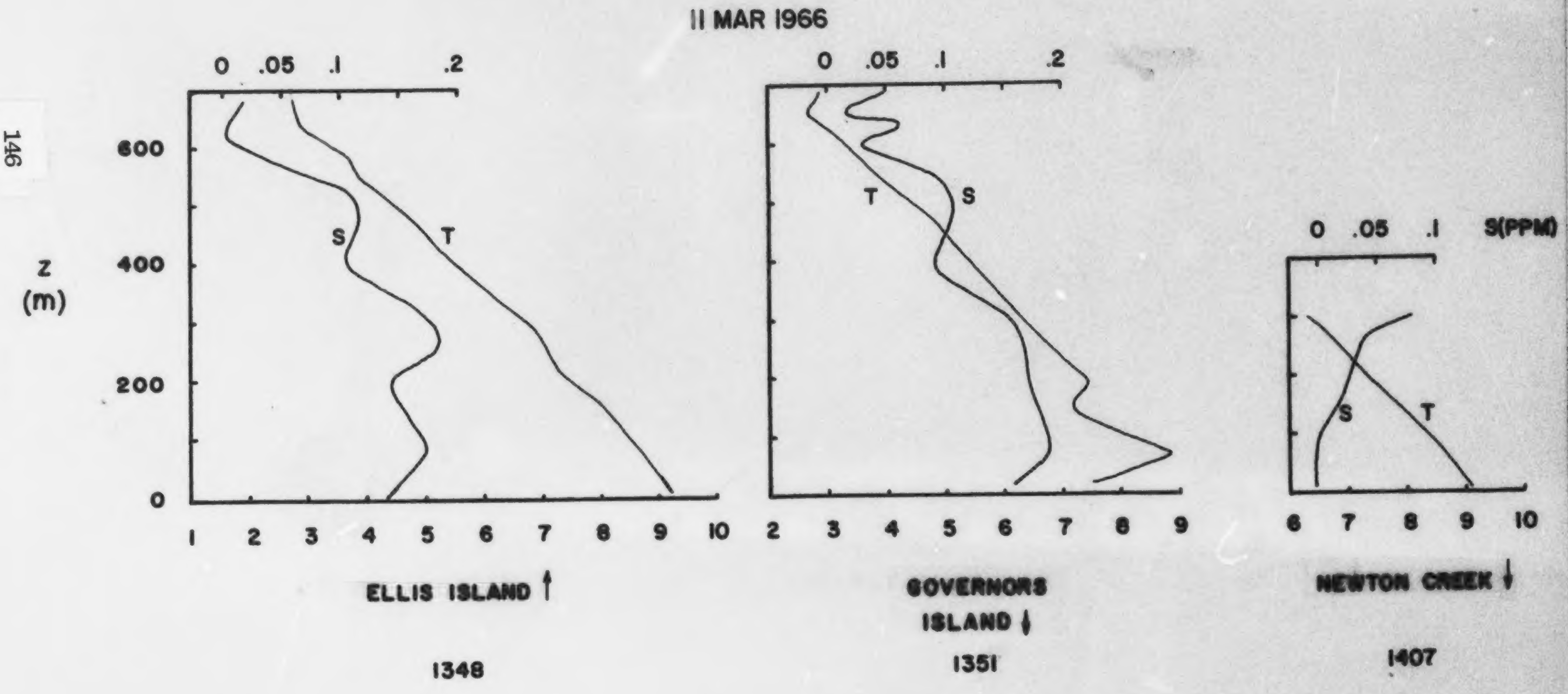
0959

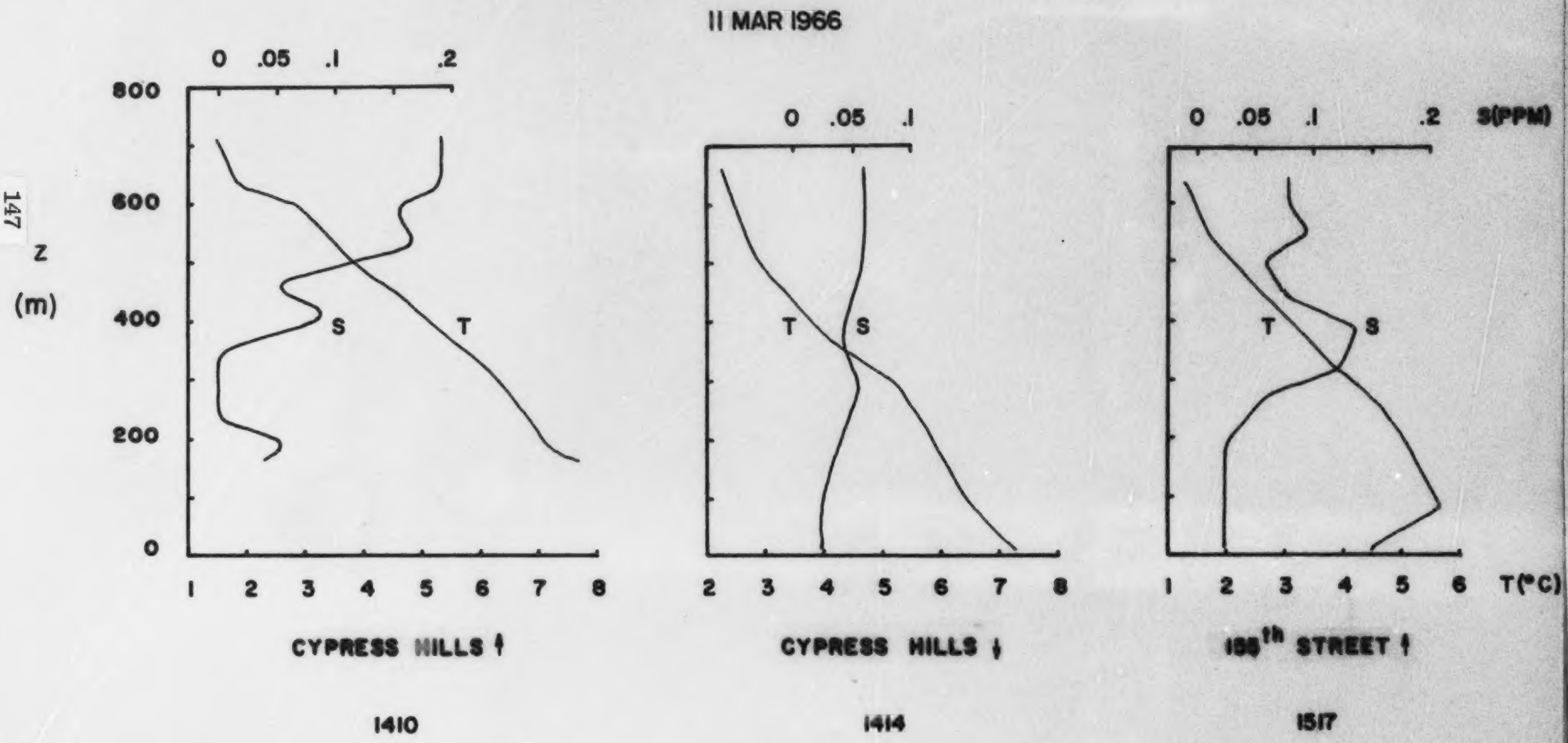
155th STREET ↑

1325

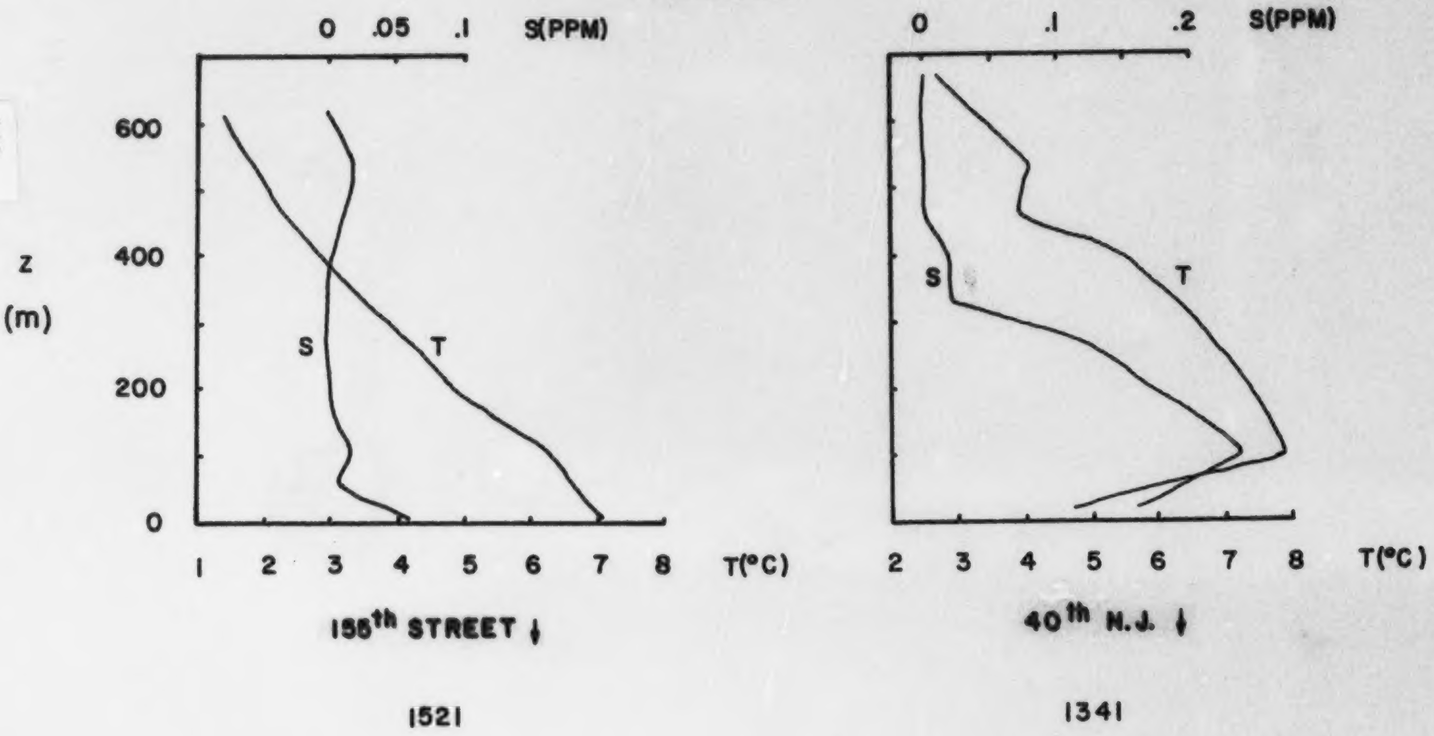

II MAR 1966
z (m)
1600
1400
1200
1000
800
600
400
200
0
0
.1
.2
T
S
-4
-2
0
2
4
6
8
10
CLOISTERS ↑
1045
0
.1
.2
.3
S(PPM)
T
S
-4
-2
0
2
4
6
8
10
FT. WASHINGTON
PARK ↓
1053


11 MAR 1966
0
.05
.1
.2
.3
.4
Z
(m)
800
600
400
200
0
T
S
0
1
2
3
4
5
6
7
8
FT. WASHINGTON
PARK ↓
1330
0
.05
.1
.2
S(PPM)
S
T
2
3
4
5
6
7
8
T(°C)
40th N.J. ↓
1338

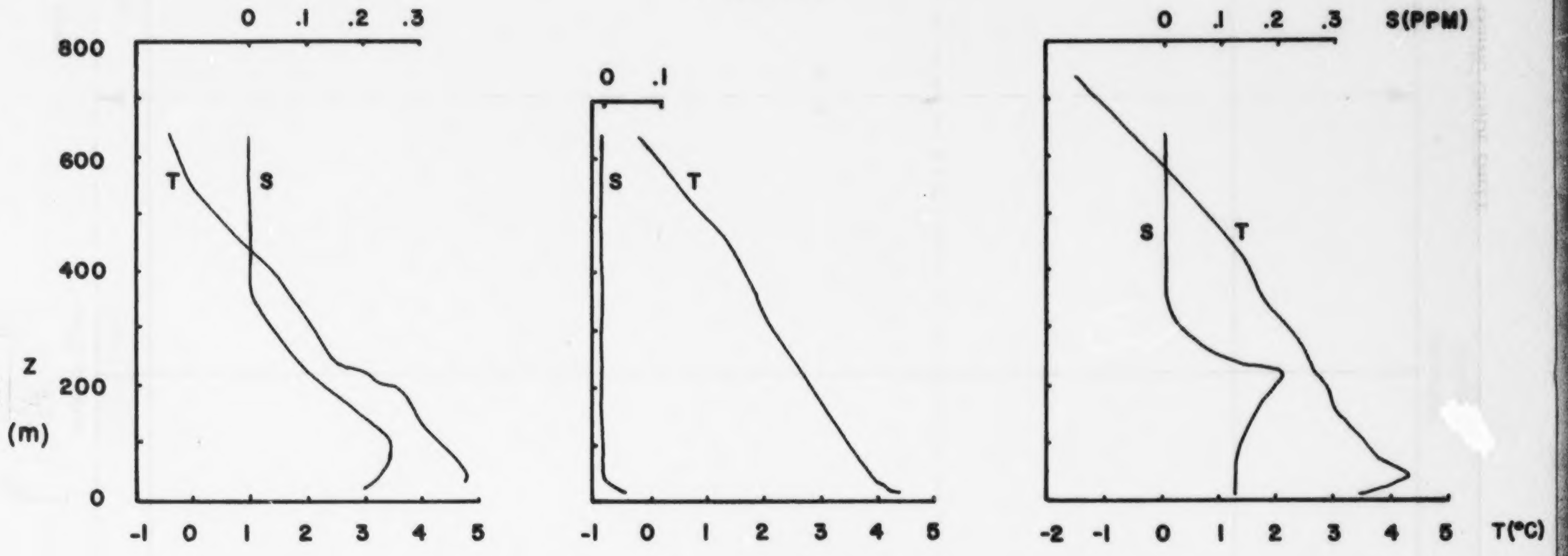

11 MAR 1966
Z
(m)
600
400
200
0
0
.05
.1
.2
S
T
1
2
3
4
5
6
7
8
9
10
ELLIS ISLAND ↑
1348
0
.05
.1
.2
T
S
2
3
4
5
6
7
8
9
GOVERNORS
ISLAND ↓
1351
0
.05
.1
S(PPM)
S
T
6
7
8
9
10
NEWTON CREEK ↓
1407


11 MAR 1966
0
.05
.1
.2
S(PPM)
800
600
400
200
0
Z
(m)
S
T
1
2
3
4
5
6
7
8
T(°C)
CYPRESS HILLS ↑
1410
CYPRESS HILLS ↓
1414
155th STREET ↑
1517

11 MAR 1966


z
(m)
0
200
400
600
0
.05
.1
S(PPM)
S
T
1
2
3
4
5
6
7
8
T(°C)
155th STREET ↓
1521
0
.1
.2
S(PPM)
S
T
2
3
4
5
6
7
8
T(°C)
40th N.J. ↓
1341

15 NOV 1966



155th STREET ↑

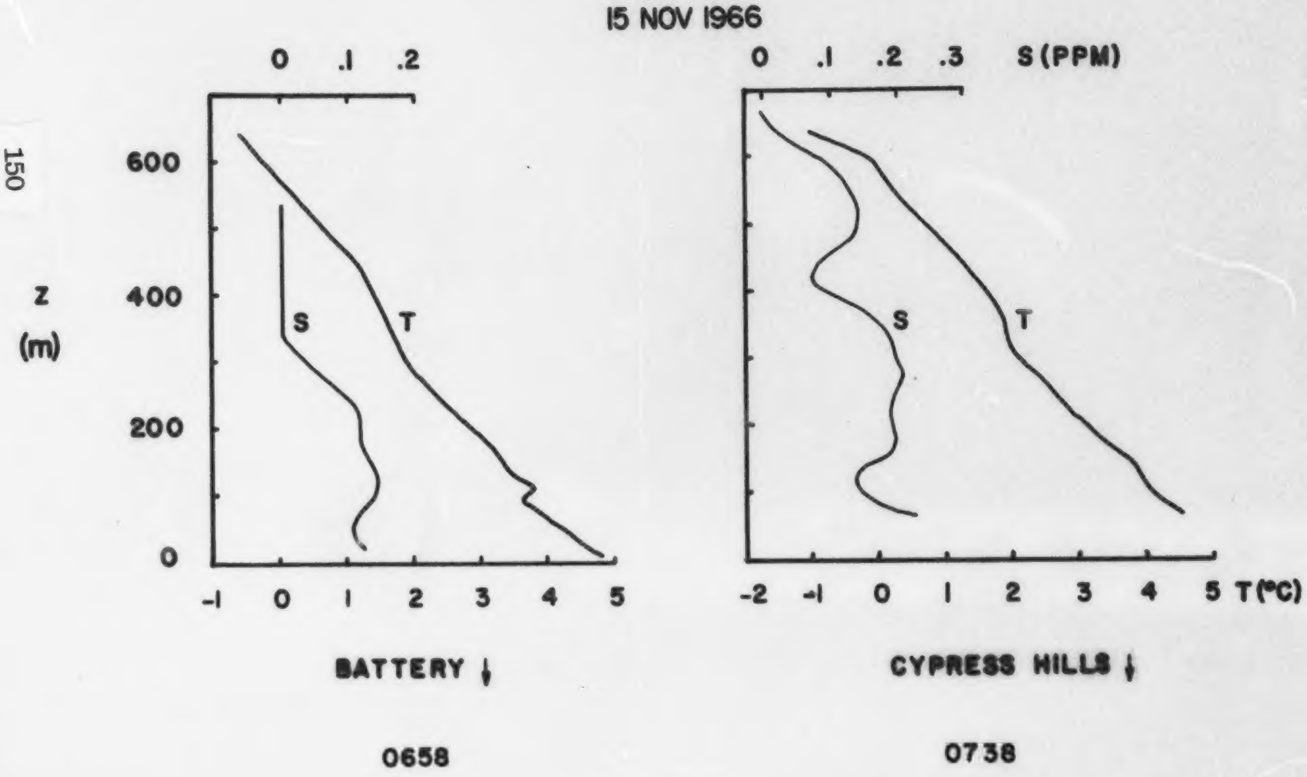
0630

FT. WASHINGTON PARK ↓

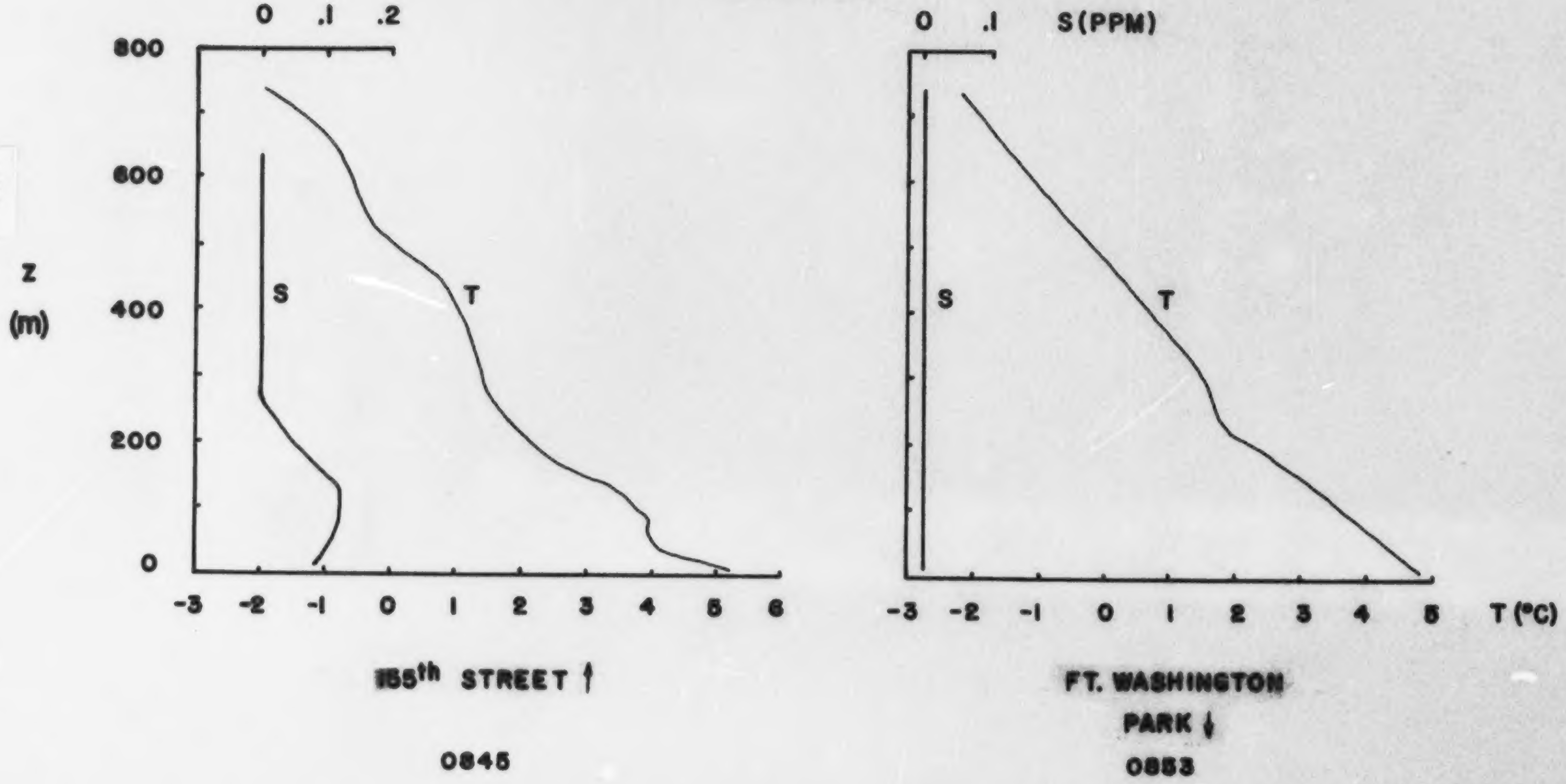
0635

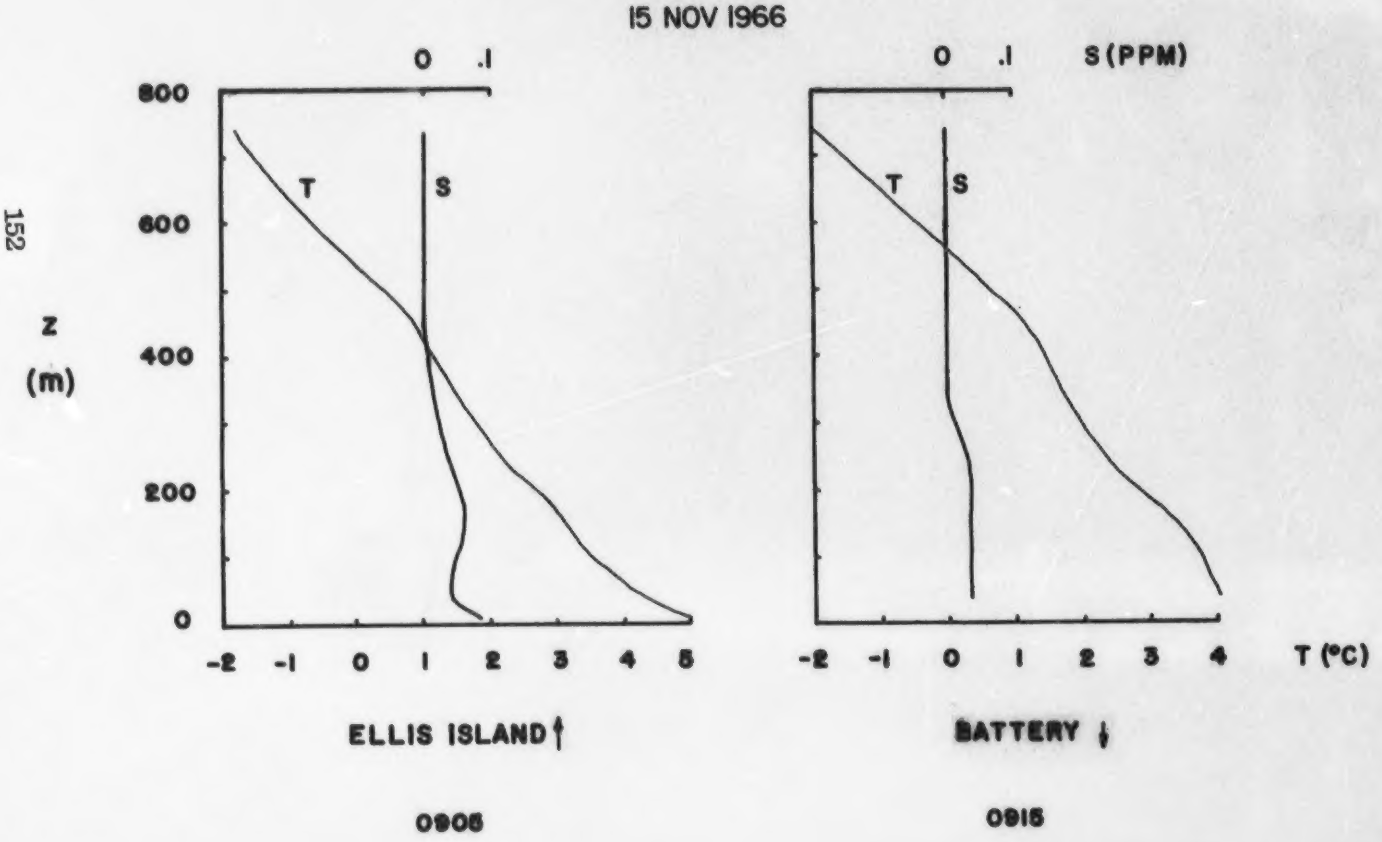
ELLIS ISLAND ↑

0650

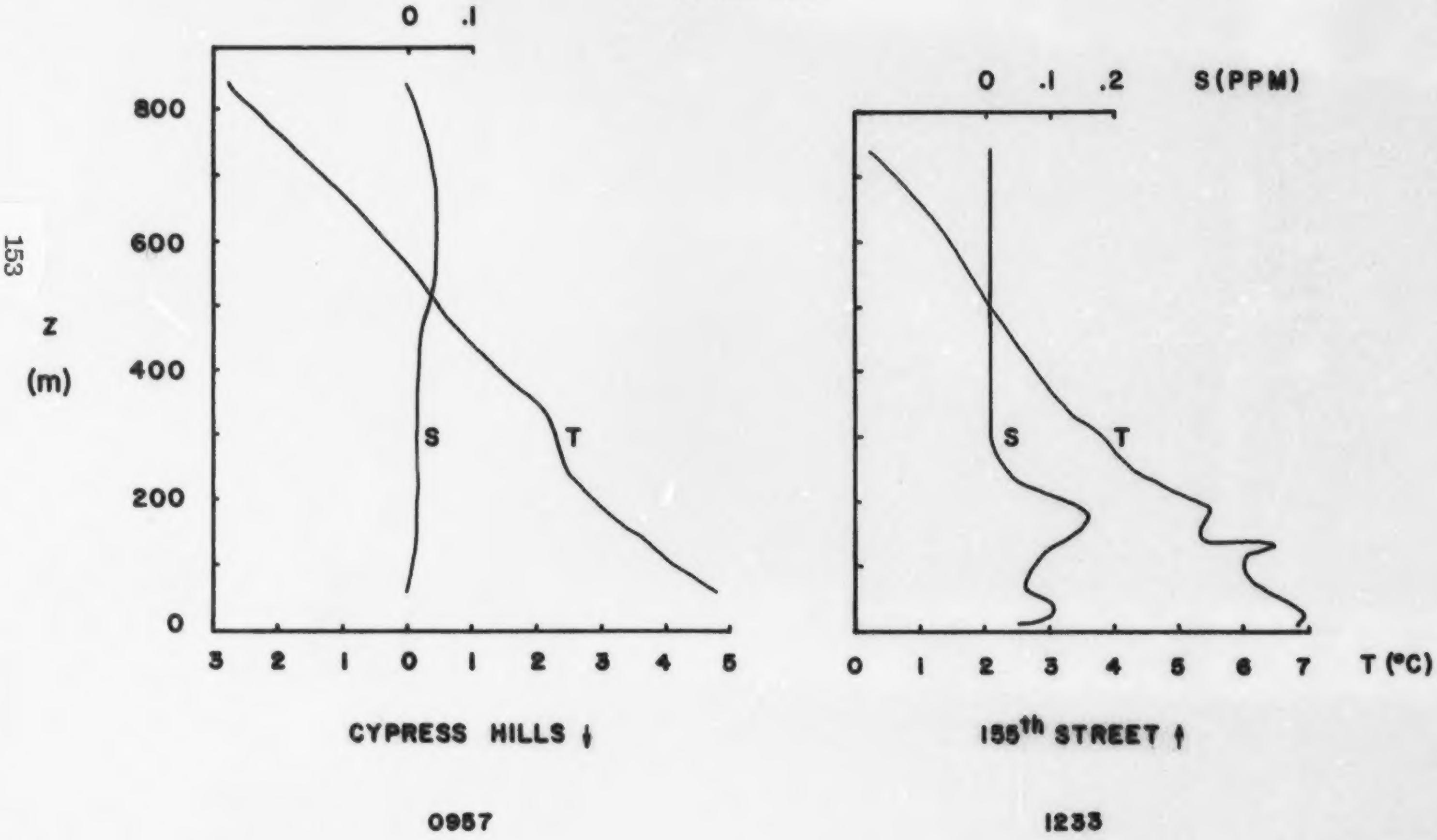

15 NOV 1966
0
.1
.2
0
.1
.2
.3
S (PPM)
Z
(m)
600
400
200
0
S
T
S
T
-1
0
1
2
3
4
5
-2
-1
0
1
2
3
4
5
T(°C)
BATTERY ↓
CYPRESS HILLS ↓
0658
0738

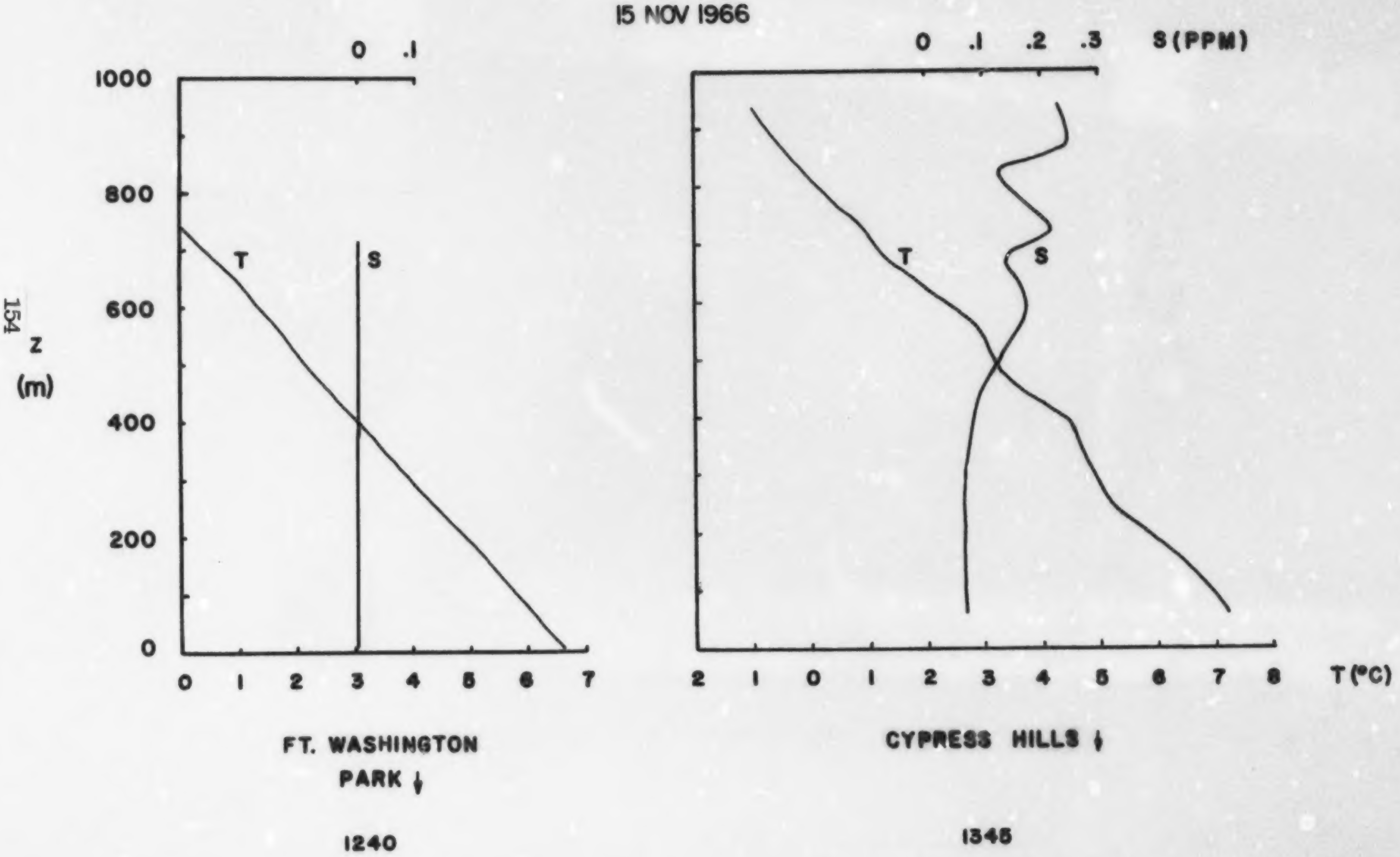
15 NOV 1966

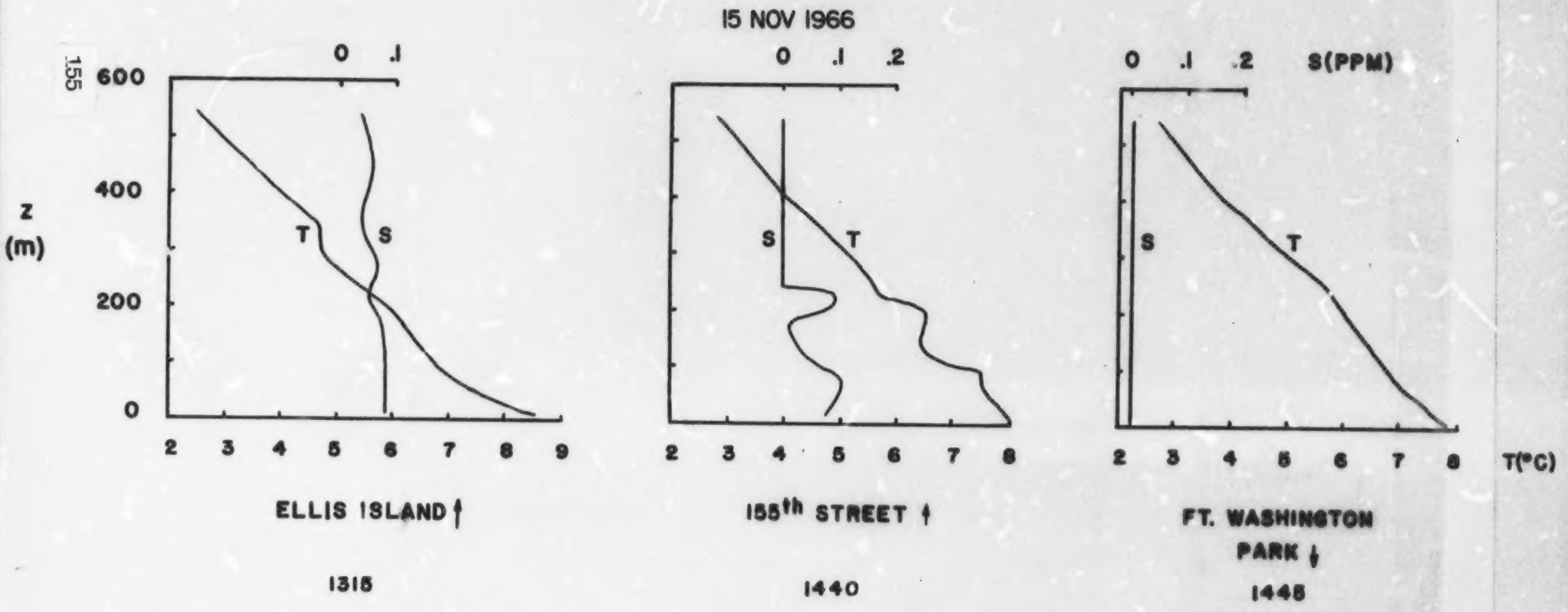

0
.1
.2
800
600
400
200
0
Z
(m)
S
T
-3
-2
-1
0
1
2
3
4
5
6
155th STREET ↑
0845
0
.1
S(PPM)
S
T
-3
-2
-1
0
1
2
3
4
5
T (°C)
FT. WASHINGTON
PARK ↓
0853

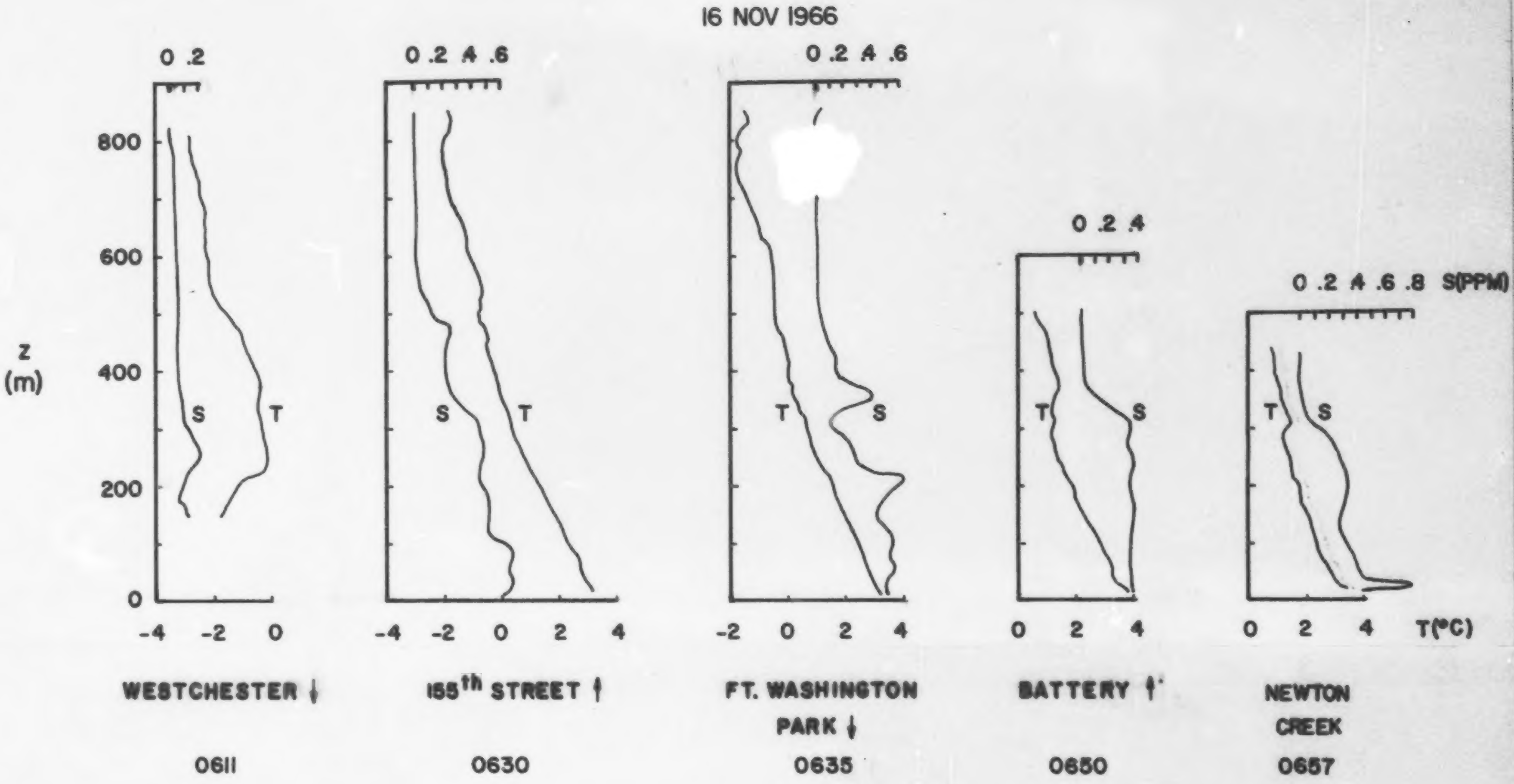

15 NOV 1966
Z
(m)
800
600
400
200
0
0
.1
S(PPM)
T
S
T
S
-2
-1
0
1
2
3
4
5
-2
-1
0
1
2
3
4
T (°C)
ELLIS ISLAND↑
BATTERY ↓
0905
0915

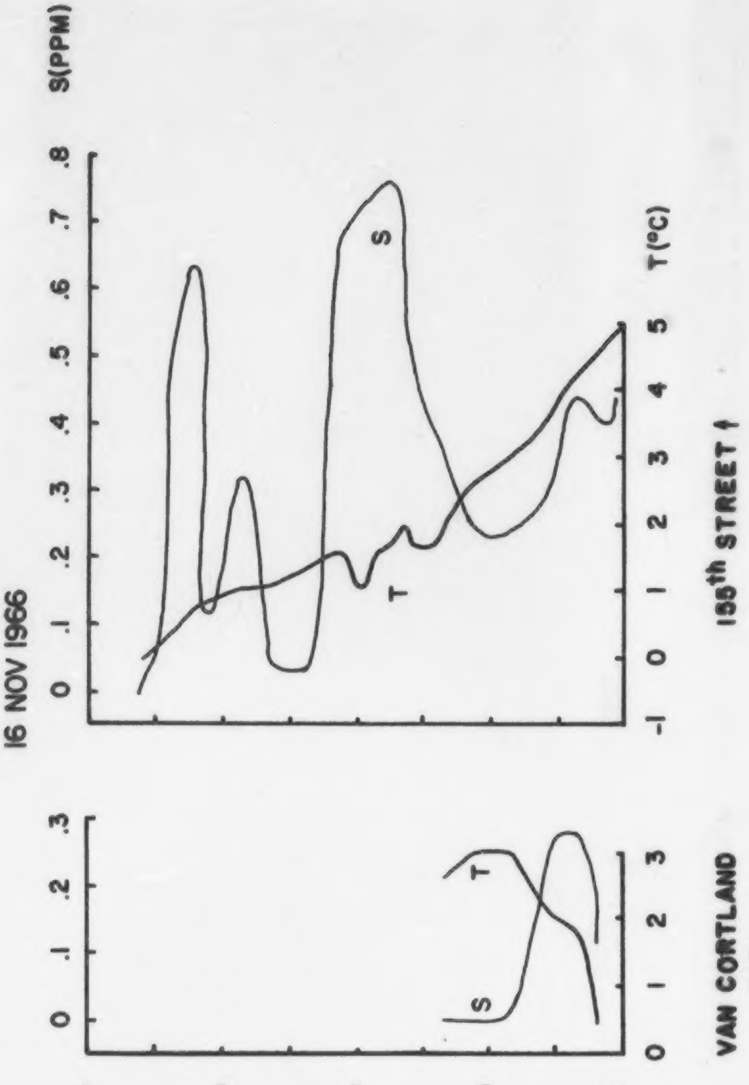
15 NOV 1966

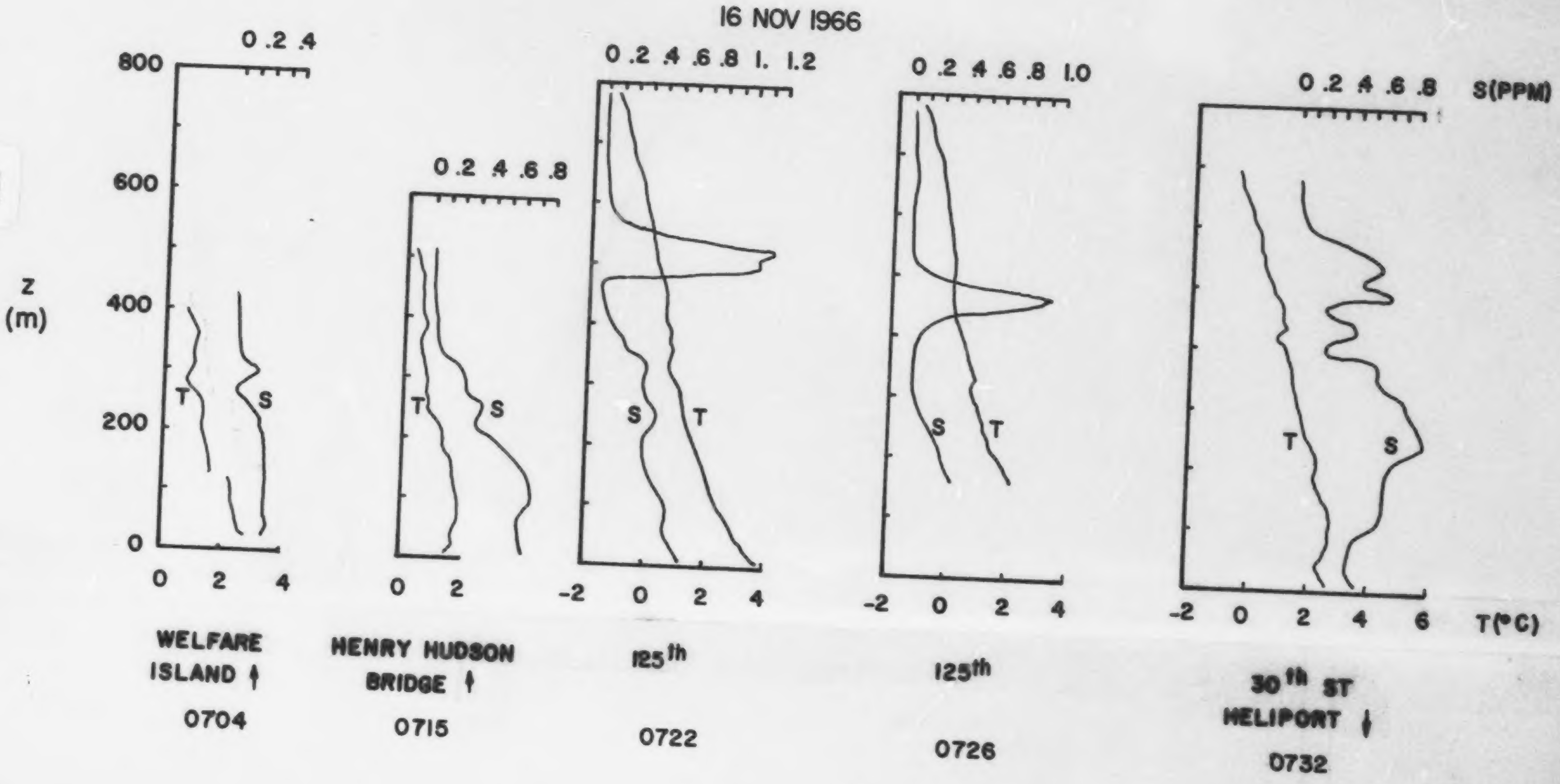

0
.1
Z
(m)
800
600
400
200
0
S
T
3
2
1
0
1
2
3
4
5
CYPRESS HILLS ↓
0957
0
.1
.2
S(PPM)
S
T
0
1
2
3
4
5
6
7
T (°C)
155th STREET ↑
1233


15 NOV 1966
z
(m)
1000
800
600
400
200
0
0
.1
T
S
0
1
2
3
4
5
6
7
FT. WASHINGTON
PARK ↓
1240
0
.1
.2
.3
S(PPM)
T
S
2
1
0
1
2
3
4
5
6
7
8
T(°C)
CYPRESS HILLS ↓
1345


15 NOV 1966
Z
(m)
600
400
200
0
0
.1
.2
S(PPM)
T
S
2
3
4
5
6
7
8
9
T(°C)
ELLIS ISLAND ↑
1315
155th STREET ↑
1440
FT. WASHINGTON
PARK ↓
1448


16 NOV 1966
z
(m)
800
600
400
200
0
0 .2
0 .2 .4 .6
0 .2 .4 .6
0 .2 .4
0 .2 .4 .6 .8 S(PPM)
S
T
-4 -2 0
-4 -2 0 2 4
-2 0 2 4
0 2 4
0 2 4 T(°C)
WESTCHESTER ↓
0611
155th STREET ↑
0630
FT. WASHINGTON PARK ↓
0635
BATTERY ↑
0650
NEWTON CREEK
0657


16 NOV 1966
S(PPM)
T(°C)
z (m)
800
600
400
200
0
0
.1
.2
.3
.4
.5
.6
.7
.8
-1
0
1
2
3
4
5
S
T
VAN CORTLAND PARK ↓
0624
155th STREET ↓
0913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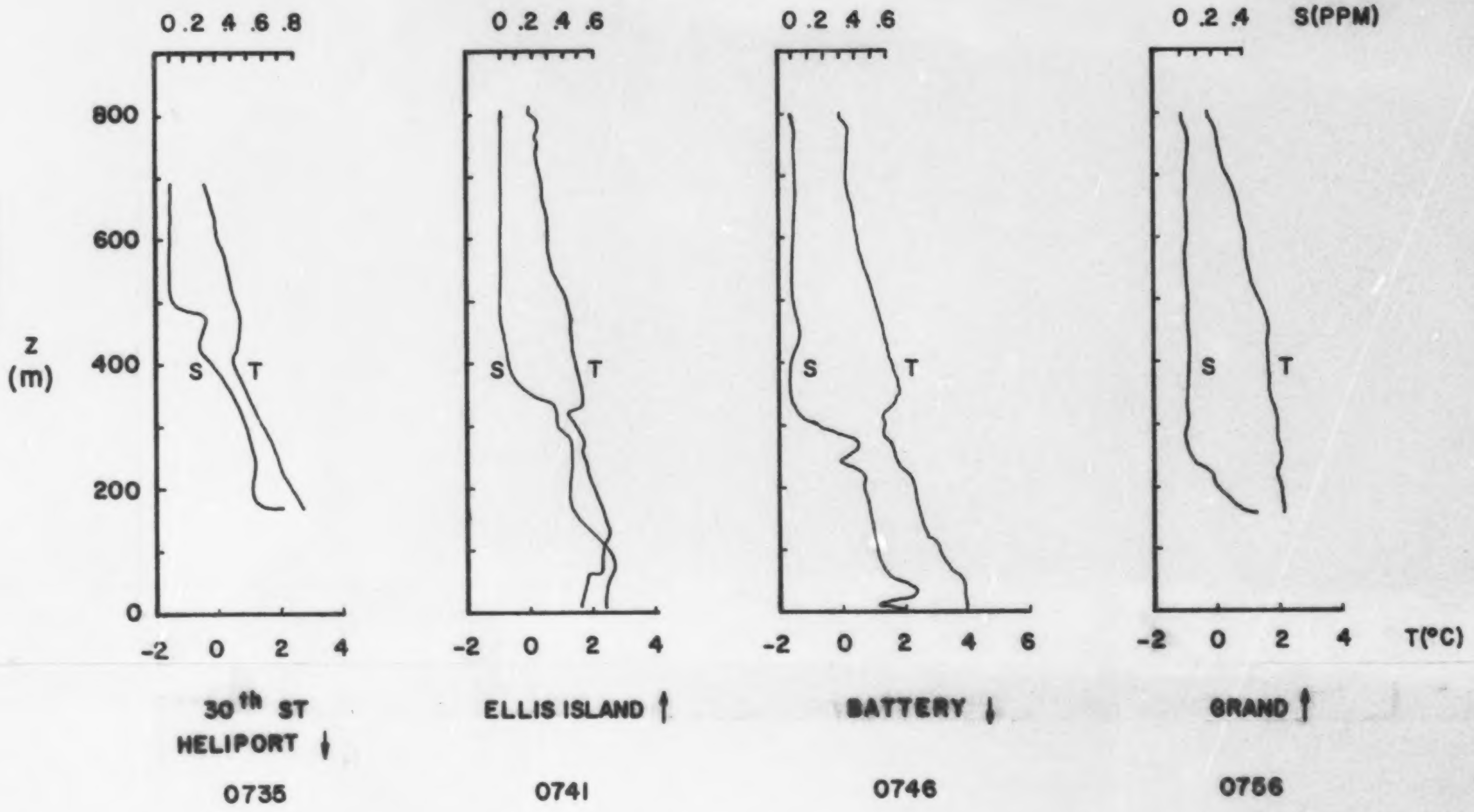
z
(m)
800
600
400
200
0
0 .2 .4
0 .2 .4 .6 .8
0 .2 .4 .6 .8 1. 1.2
0 .2 .4 .6 .8 1.0
0 .2 .4 .6 .8
S(PPM)
T
S
0 2 4
0 2
-2 0 2 4
-2 0 2 4
-2 0 2 4 6
T(°C)
WELFARE
ISLAND ↑
0704
HENRY HUDSON
BRIDGE ↑
0715
125th
0722
125th
0726
30th ST
HELIPORT ↓
0732

16 NOV 1966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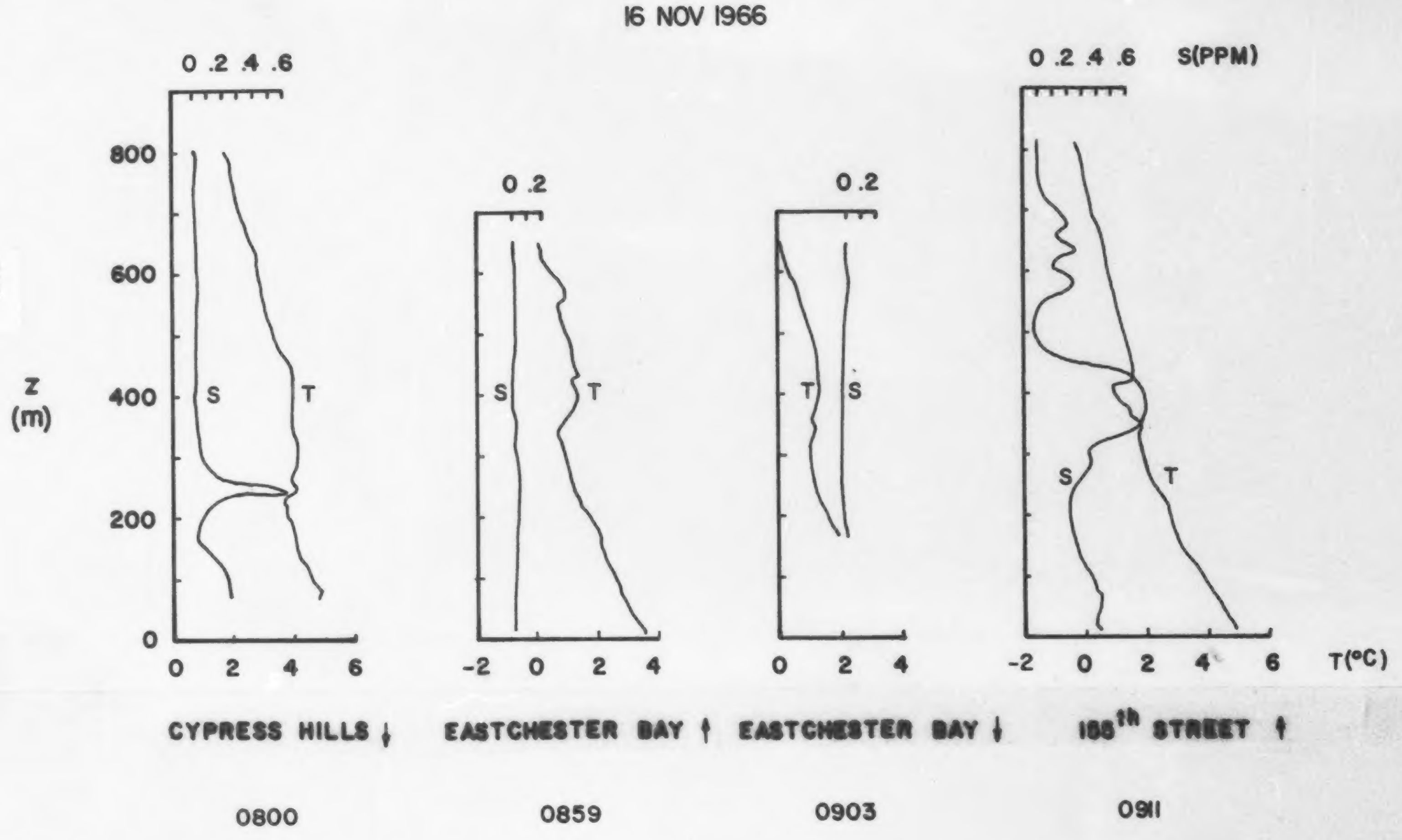
0 .2 .4 .6
0 .2 .4 .6
0 .2 .4
S(PPM)
Z
(m)
800
600
400
200
0
S
T
-2
0
2
4
6
T(°C)
30th ST
HELIPORT ↓
0735
ELLIS ISLAND ↑
0741
BATTERY ↓
0746
GRAND ↑
0756

16 NOV 1966
0 .2 .4 .6
0 .2
0 .2
0 .2 .4 .6
S(PPM)
Z
(m)
800
600
400
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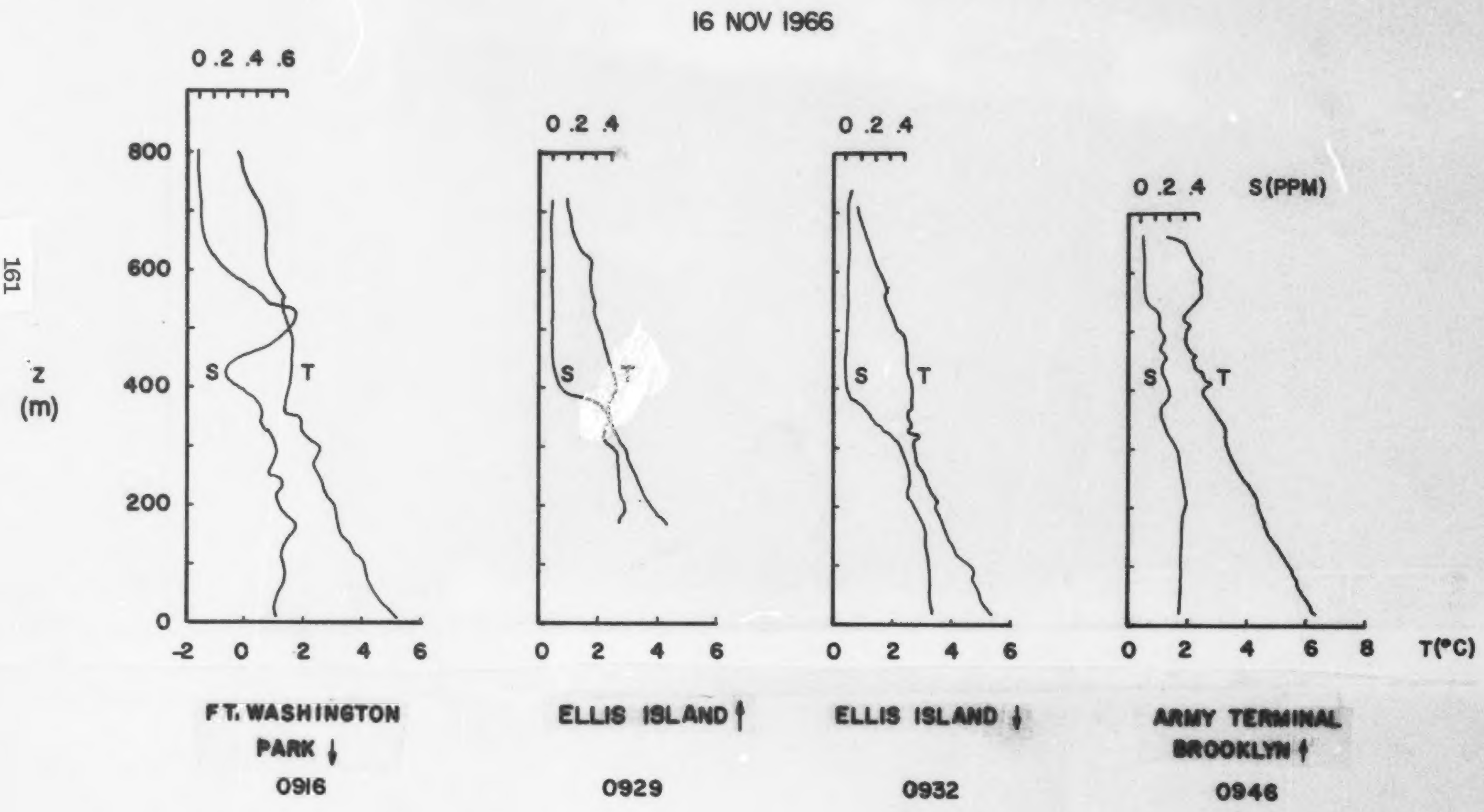
0
S
T
0
2
4
6
-2
0
2
4
0
2
4
-2
0
2
4
6
T(°C)
CYPRESS HILLS ↓
EASTCHESTER BAY ↑
EASTCHESTER BAY ↓
155th STREET ↑
0800
0859
0903
0911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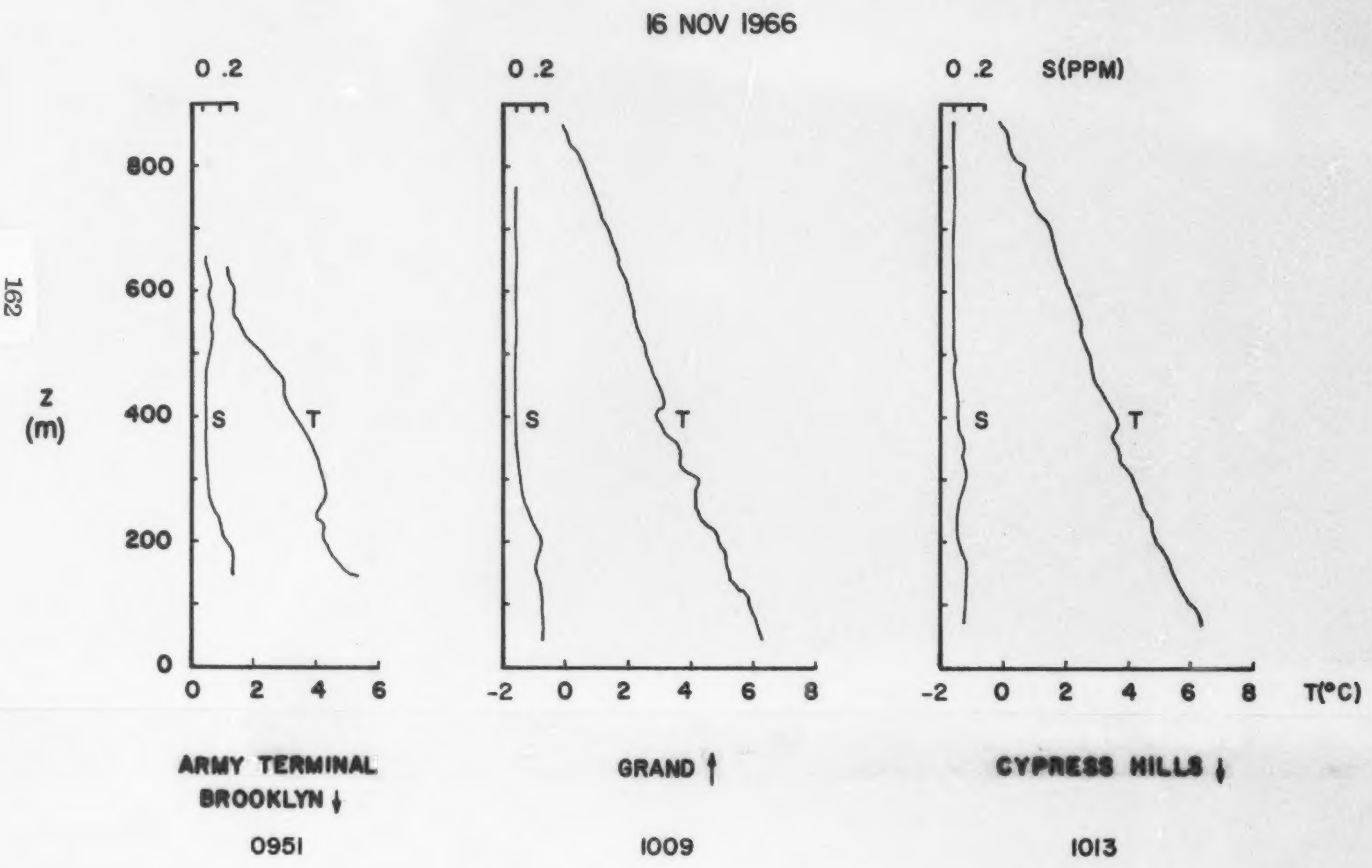
Z
(m)
0
200
400
600
800
0 .2 .4 .6
0 .2 .4
0 .2 .4
0 .2 .4
S(PPM)
S
T
-2
0
2
4
6
8
T(°C)
F.T. WASHINGTON
PARK ↓
0916
ELLIS ISLAND ↑
0929
ELLIS ISLAND ↓
0932
ARMY TERMINAL
BROOKLYN ↑
0946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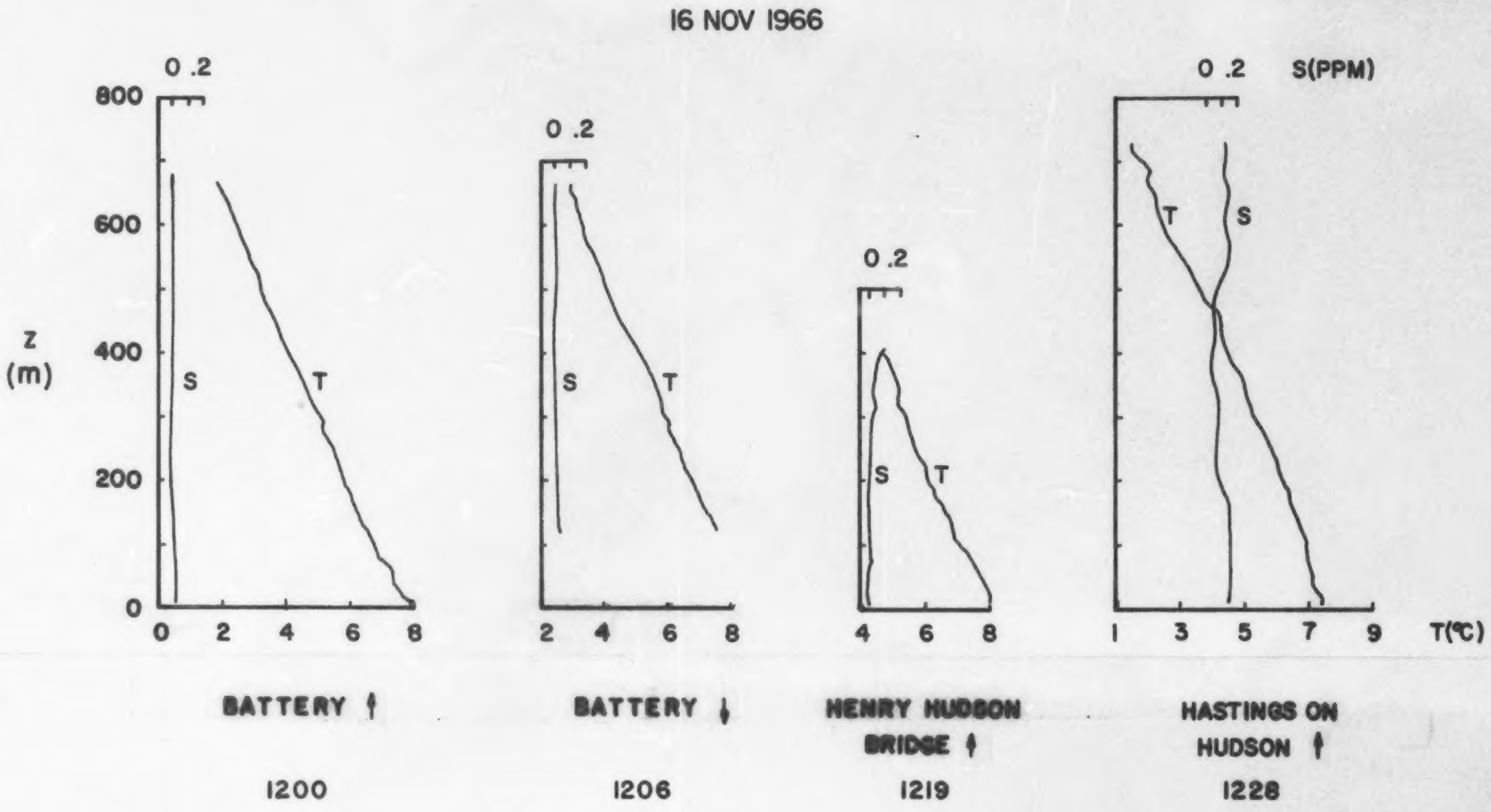
0 .2
S(PPM)
Z
(m)
800
600
400
200
0
S
T
0
2
4
6
-2
8
T(°C)
ARMY TERMINAL
BROOKLYN ↓
0951
GRAND ↑
1009
CYPRESS HILLS ↓
1013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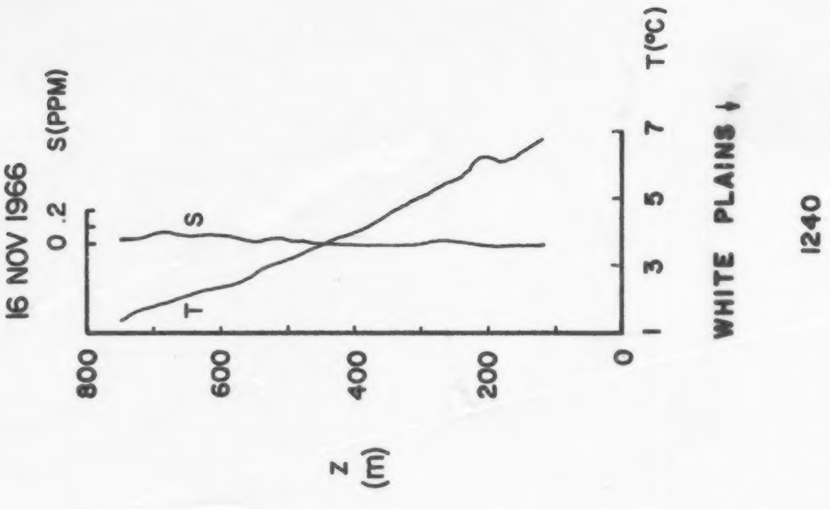
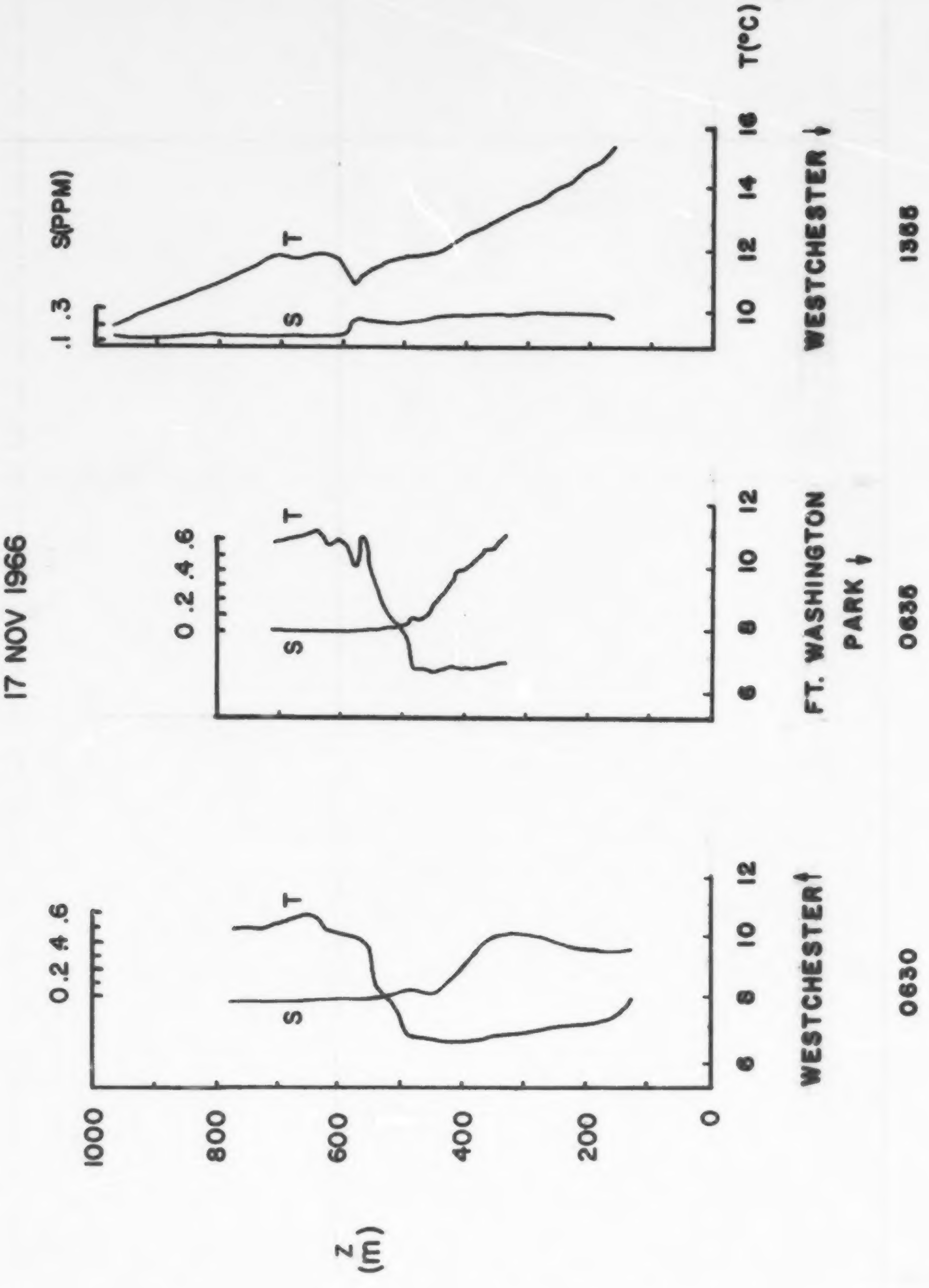
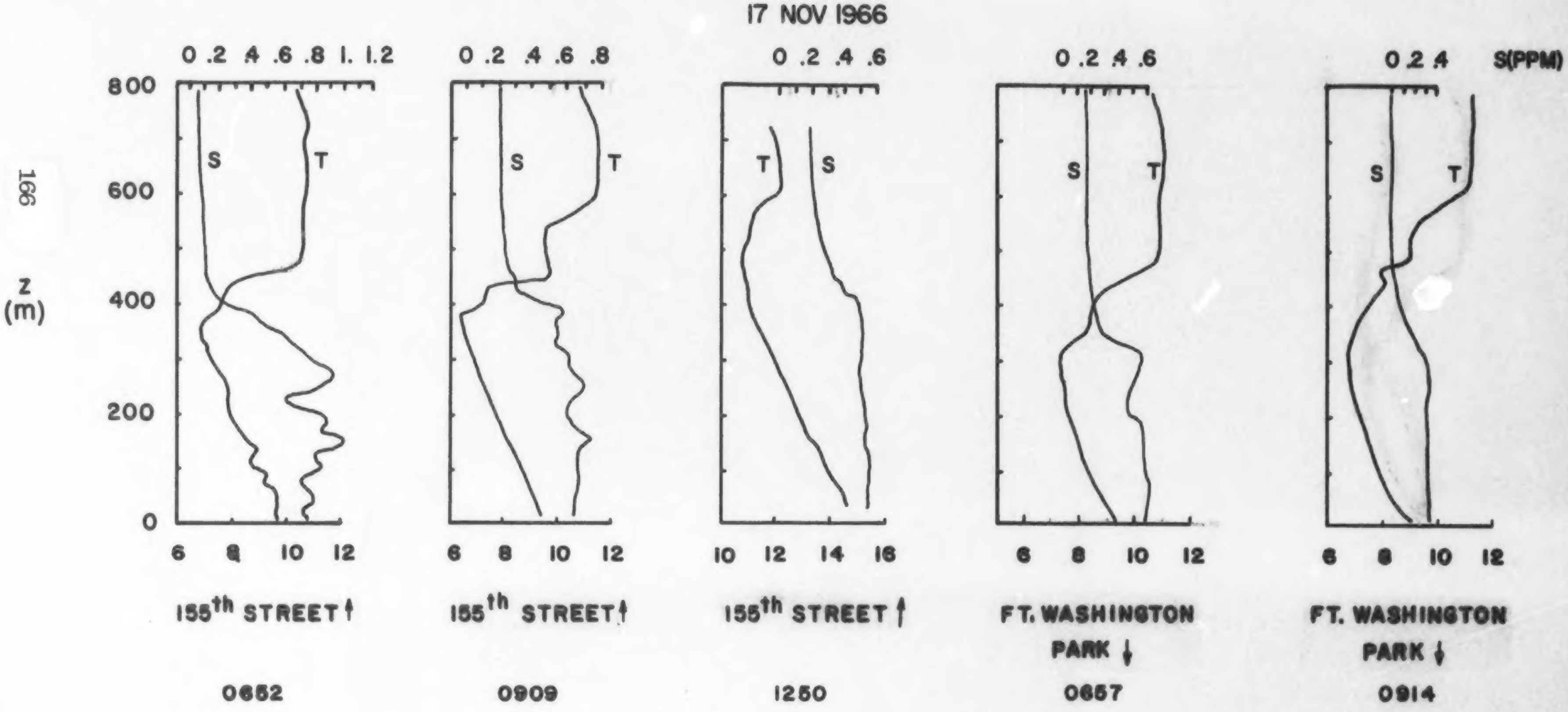
0 .2
0 .2
0 .2
0 .2
S(PPM)
800
600
400
200
0
Z
(m)
S
T
S
T
S
T
T
S
0
2
4
6
8
2
4
6
8
4
6
8
1
3
5
7
9
T(°C)
BATTERY ↑
1200
BATTERY ↓
1206
HENRY HUDSON
BRIDGE ↑
1219
HASTINGS ON
HUDSON ↑
1228


16 NOV 1966
S(PPM)
0 .2
S
T
T(°C)
1
3
5
7
800
600
400
200
0
z
(m)
WHITE PLAINS ↓
1240

BEGIN FIRST LINE OF
TYPING GUIDE SHEET
CENTER OF PAGE
TOP OF IMAGE
DROPPED HEAD BEGIN SECTION HERE
OF TEXT
FOR TABLES AND ILLUSTRATIONS
PAGE NUMBER
EPA-287 (Cin.) (4-72)

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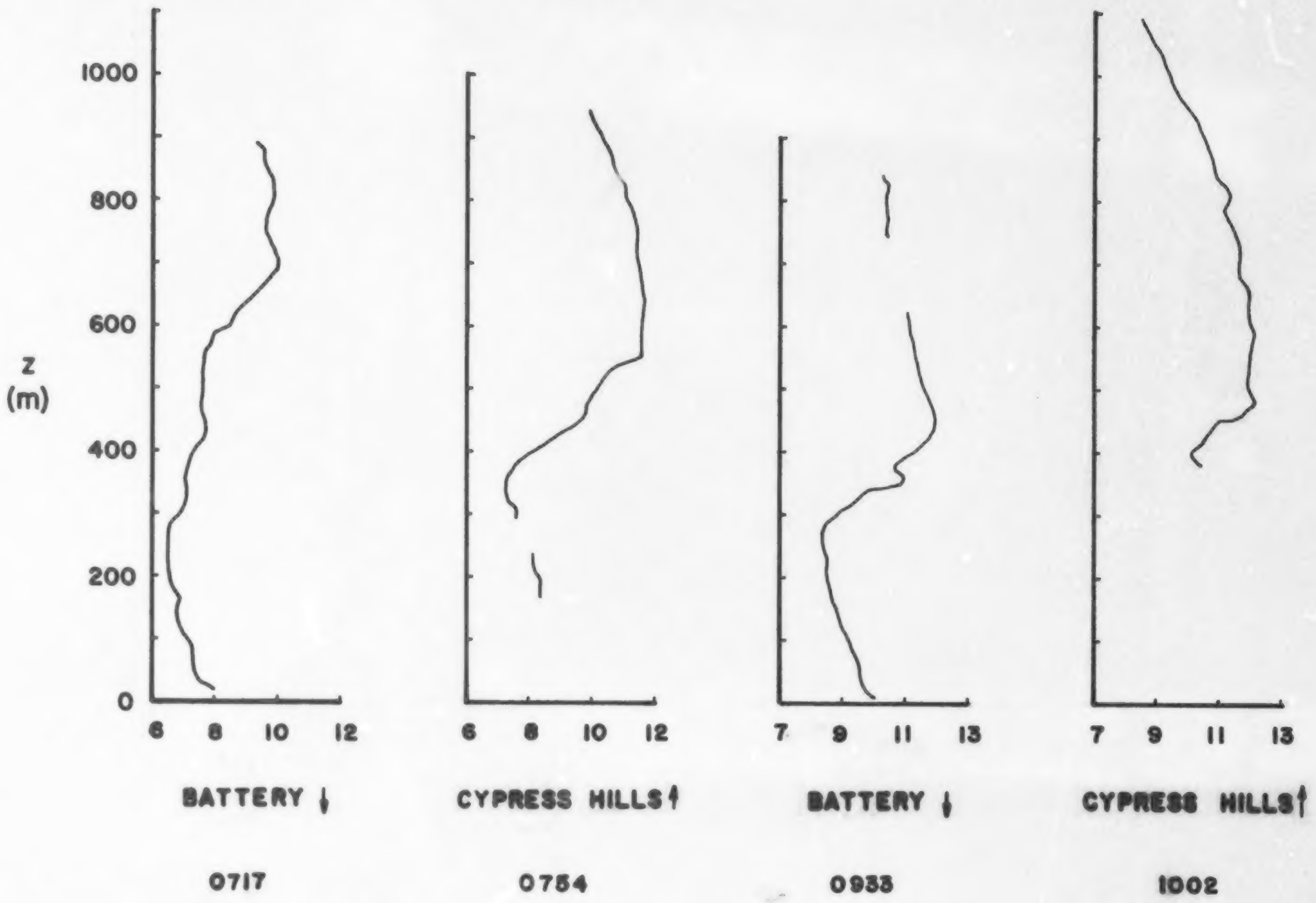
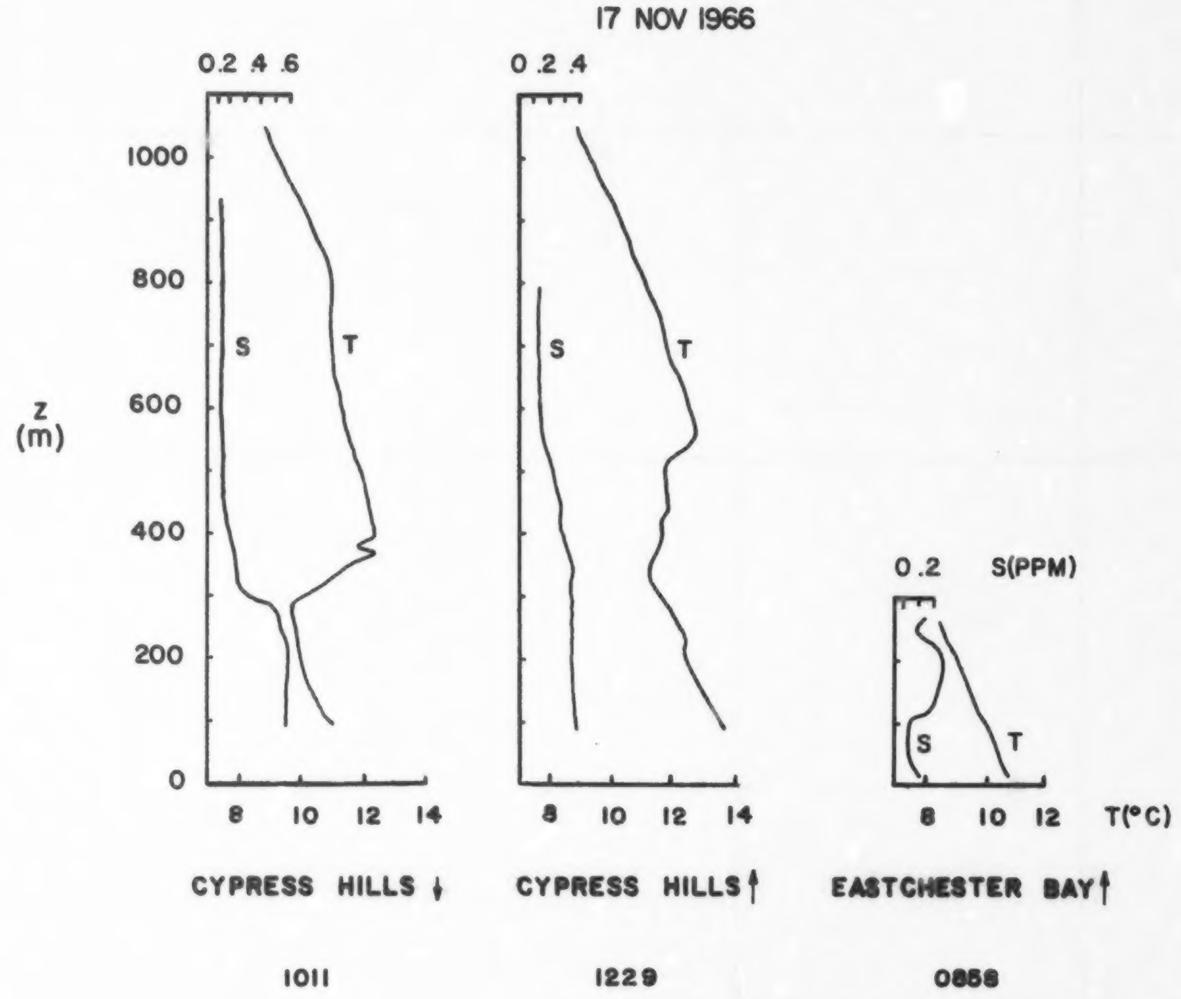
z (m)
800
600
400
200
0
0 .2 .4 .6 .8 1. 1.2
0 .2 .4 .6 .8
0 .2 .4 .6
0 .2 .4 .6
0 .2 .4
S(PPM)
S
T
6 8 10 12
10 12 14 16
155th STREET ↑
0652
155th STREET ↑
0909
155th STREET ↑
1250
FT. WASHINGTON PARK ↓
0657
FT. WASHINGTON PARK ↓
0914

17 NOV 1966


z
(m)
1000
800
600
400
200
0
6
8
10
12
BATTERY ↓
0717
6
8
10
12
CYPRESS HILLS ↑
0754
7
9
11
13
BATTERY ↓
0933
7
9
11
13
CYPRESS HILLS ↑
1002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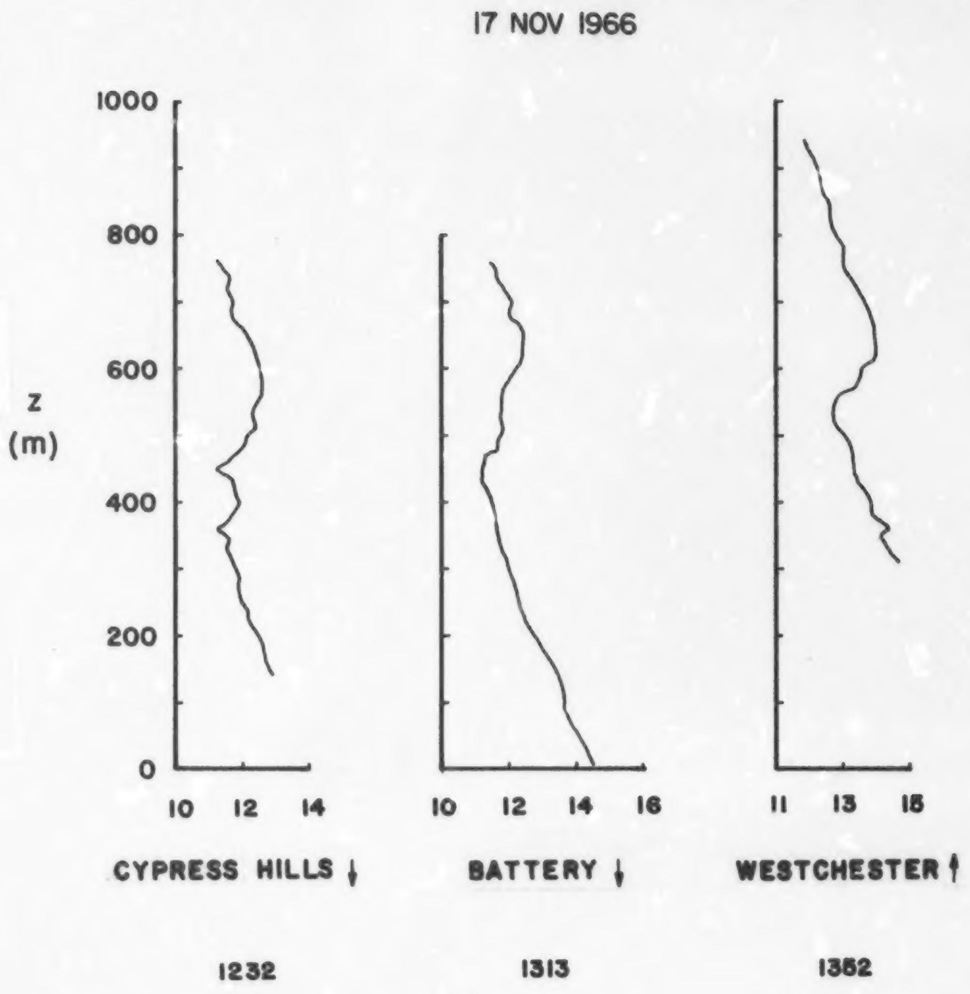
0.2 .4 .6
0 .2 .4
0 .2
S(PPM)
z
(m)
1000
800
600
400
200
0
S
T
8
10
12
14
T(°C)
CYPRESS HILLS ↓
CYPRESS HILLS ↑
EASTCHESTER BAY ↑
1011
1229
0858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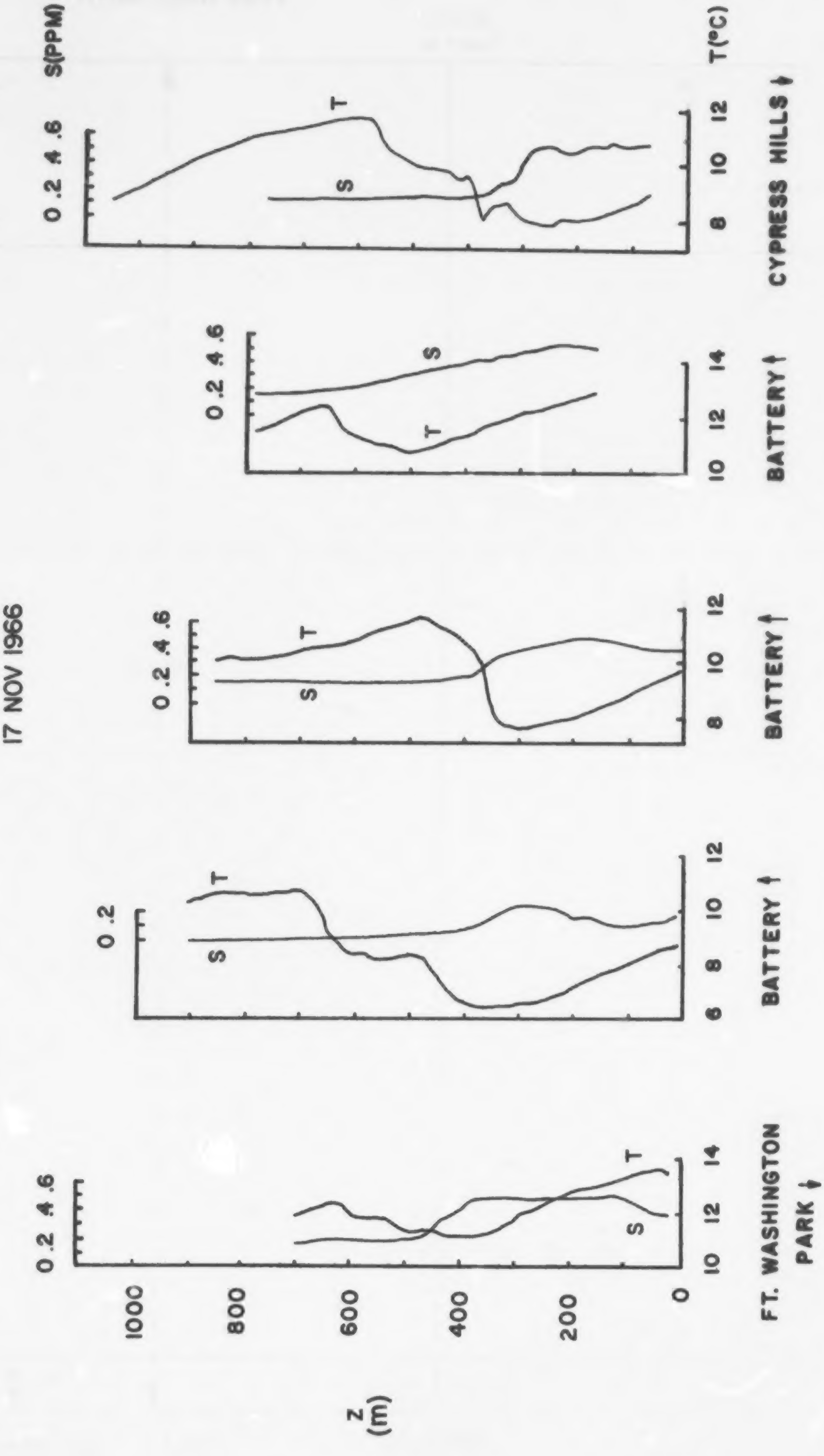
z
(m)
1000
800
600
400
200
0
10
12
14
10
12
14
16
11
13
15
CYPRESS HILLS ↓
BATTERY ↓
WESTCHESTER ↑
1232
1313
1352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S(PPM)
T(°C)
Z (m)
0
200
400
600
800
1000
0.2 .4 .6
0.2
10 12 14
6 8 10 12
8 10 12
10 12 14
8 10 12
T
S
FT. WASHINGTON PARK ↓
1254
BATTERY ↓
0714
BATTERY ↑
0928
BATTERY ↑
1309
CYPRESS HILLS ↓
0759

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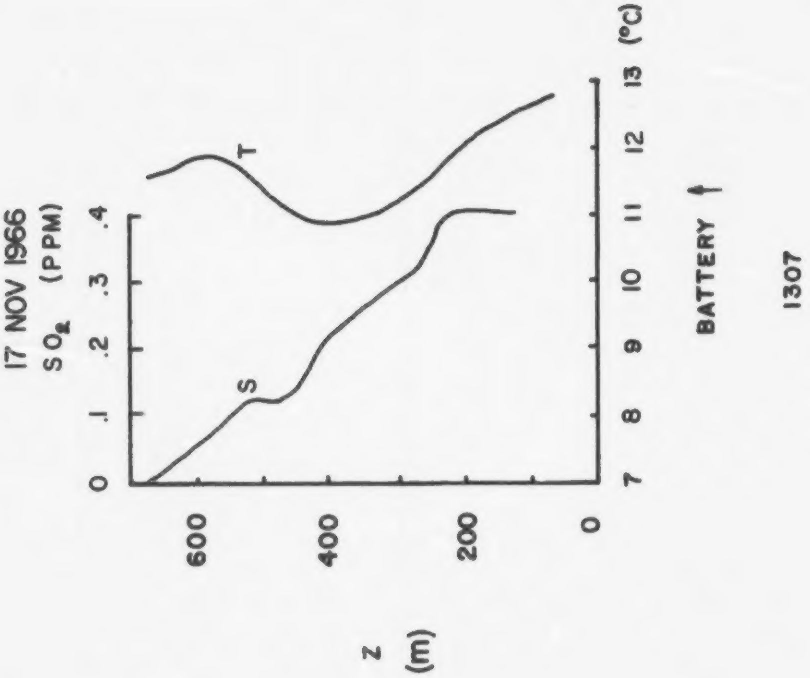
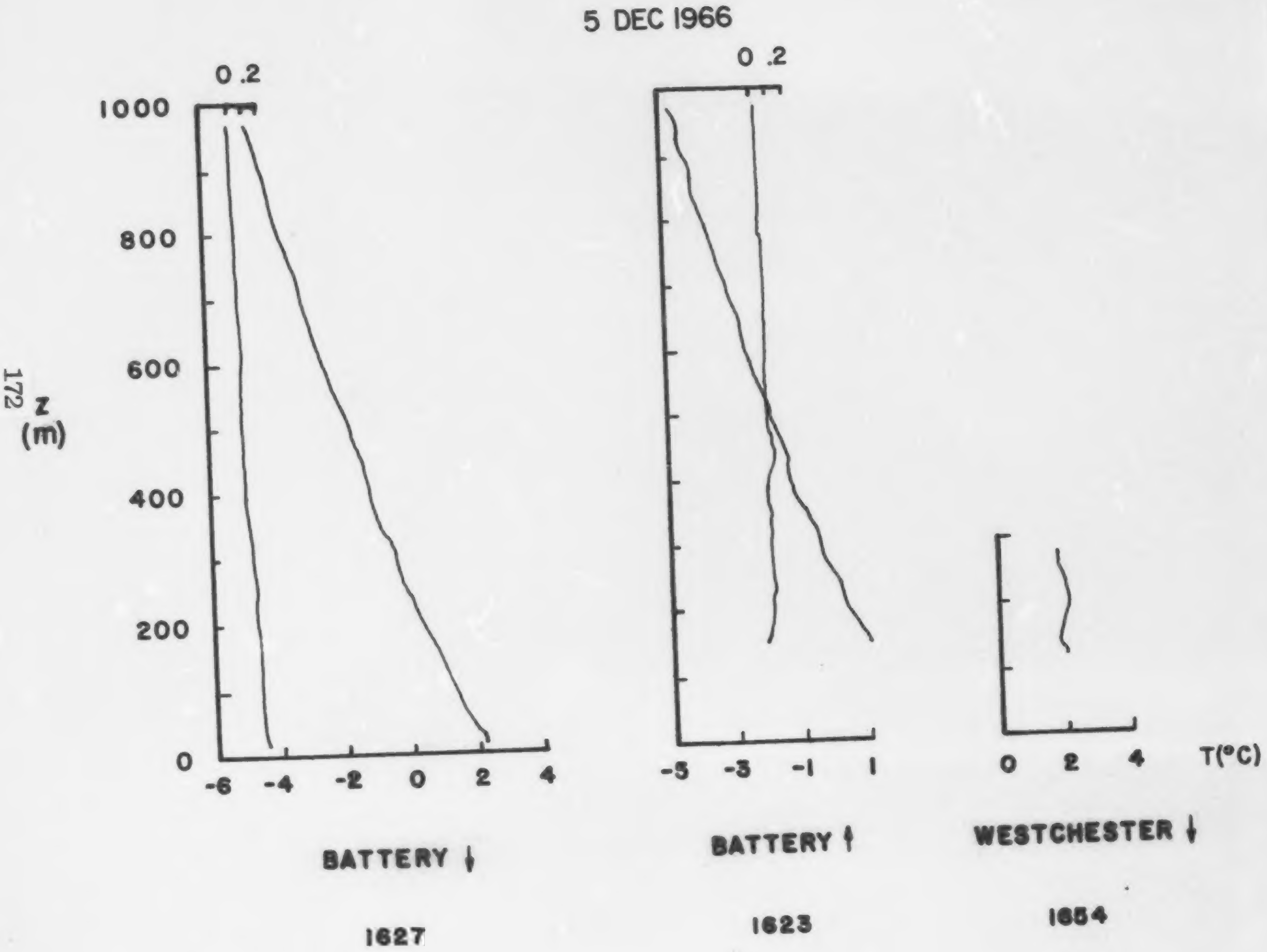
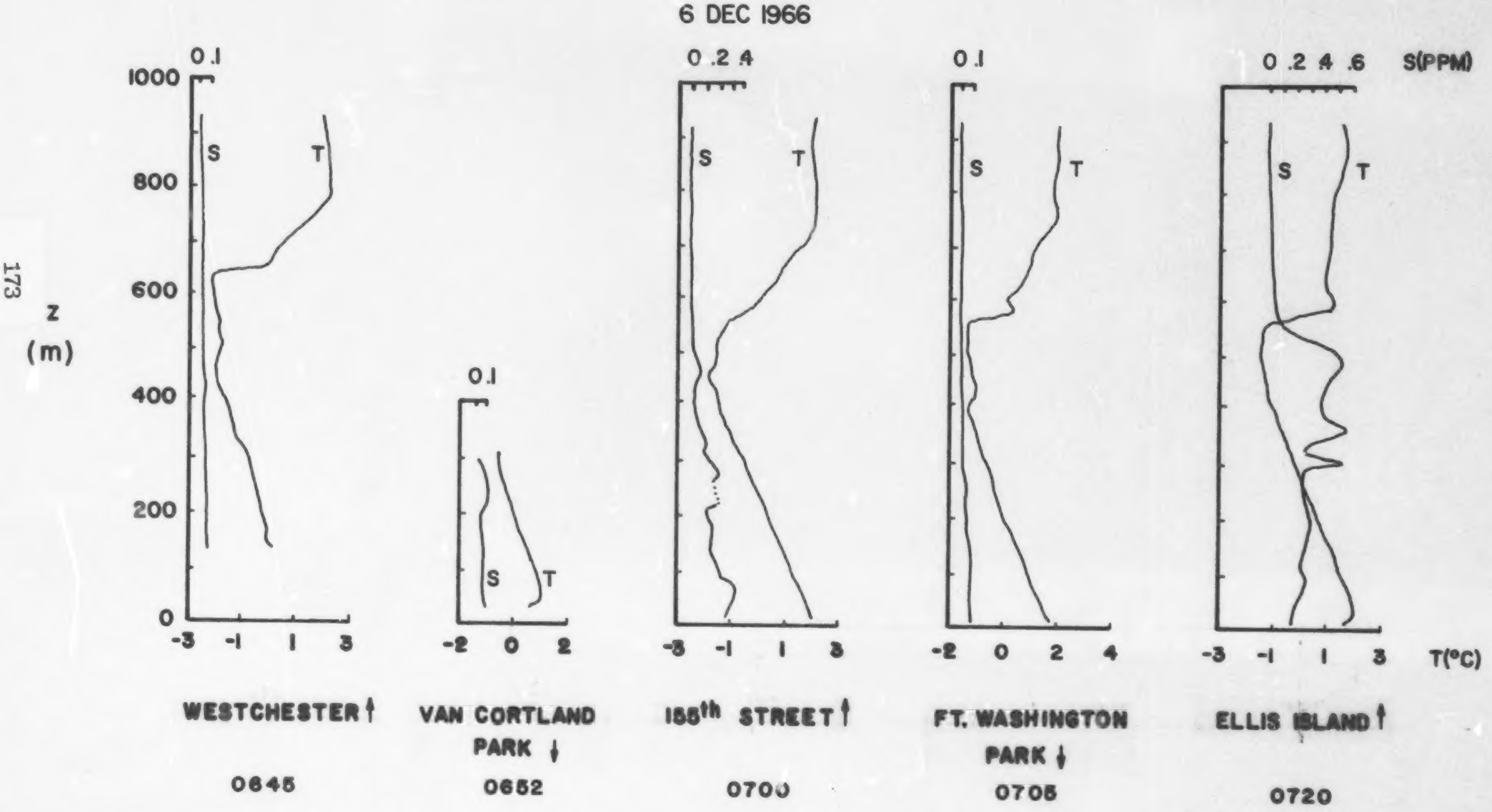
BEGIN FIRST LINE OF TEXT HERE
CENTER OF PAGE
TOP OF IMAGE AREA
DROPPED HEAD BEGIN SECTIONS HERE
BEGIN LAST LINE OF TEXT





5 DEC 1966

z
(m)
1000
800
600
400
200
0
0 .2
-6
-4
-2
0
2
4
0 .2
-5
-3
-1
1
0
2
4
T(°C)
BATTERY ↓
1627
BATTERY ↑
1623
WESTCHESTER ↓
1654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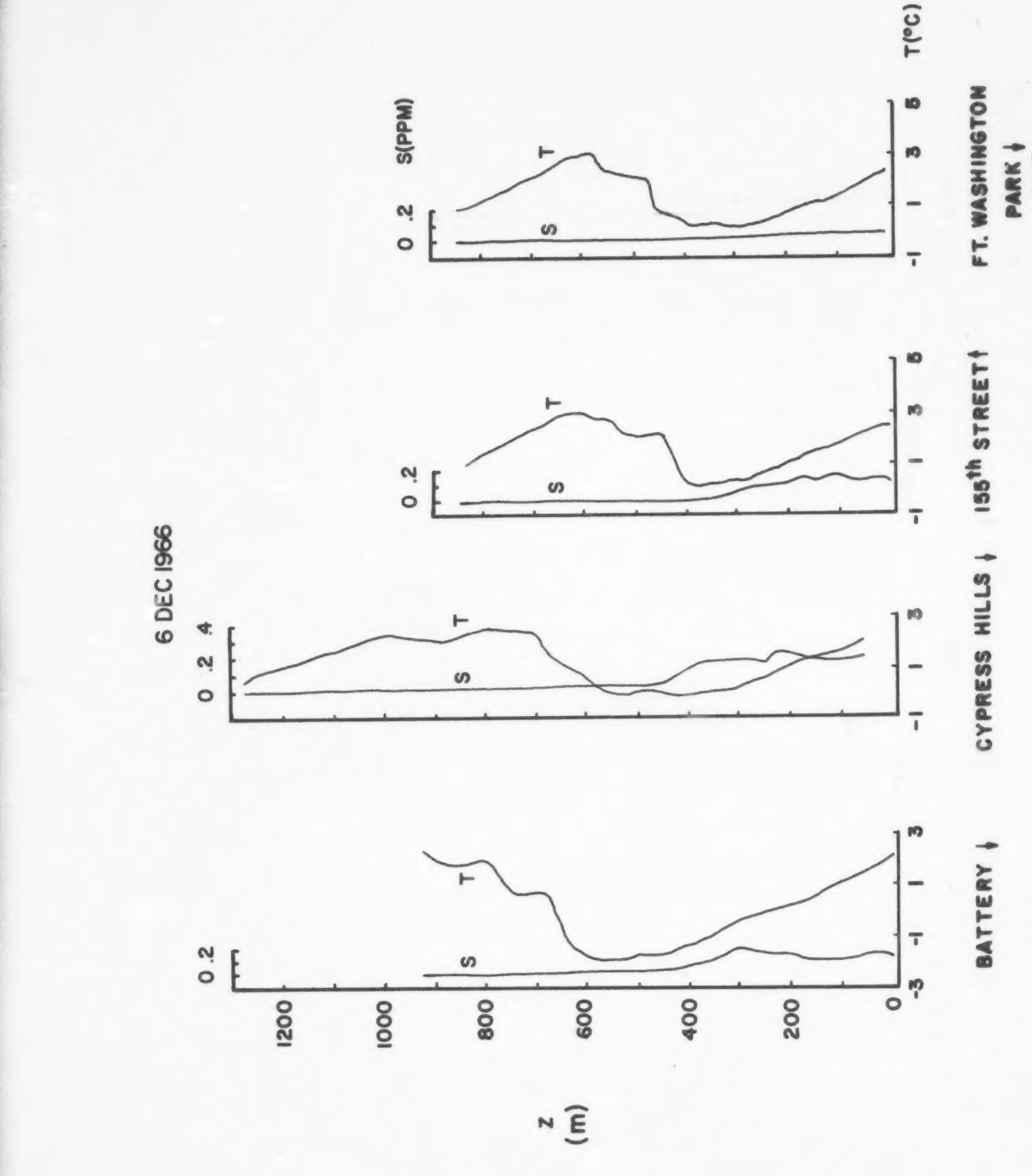
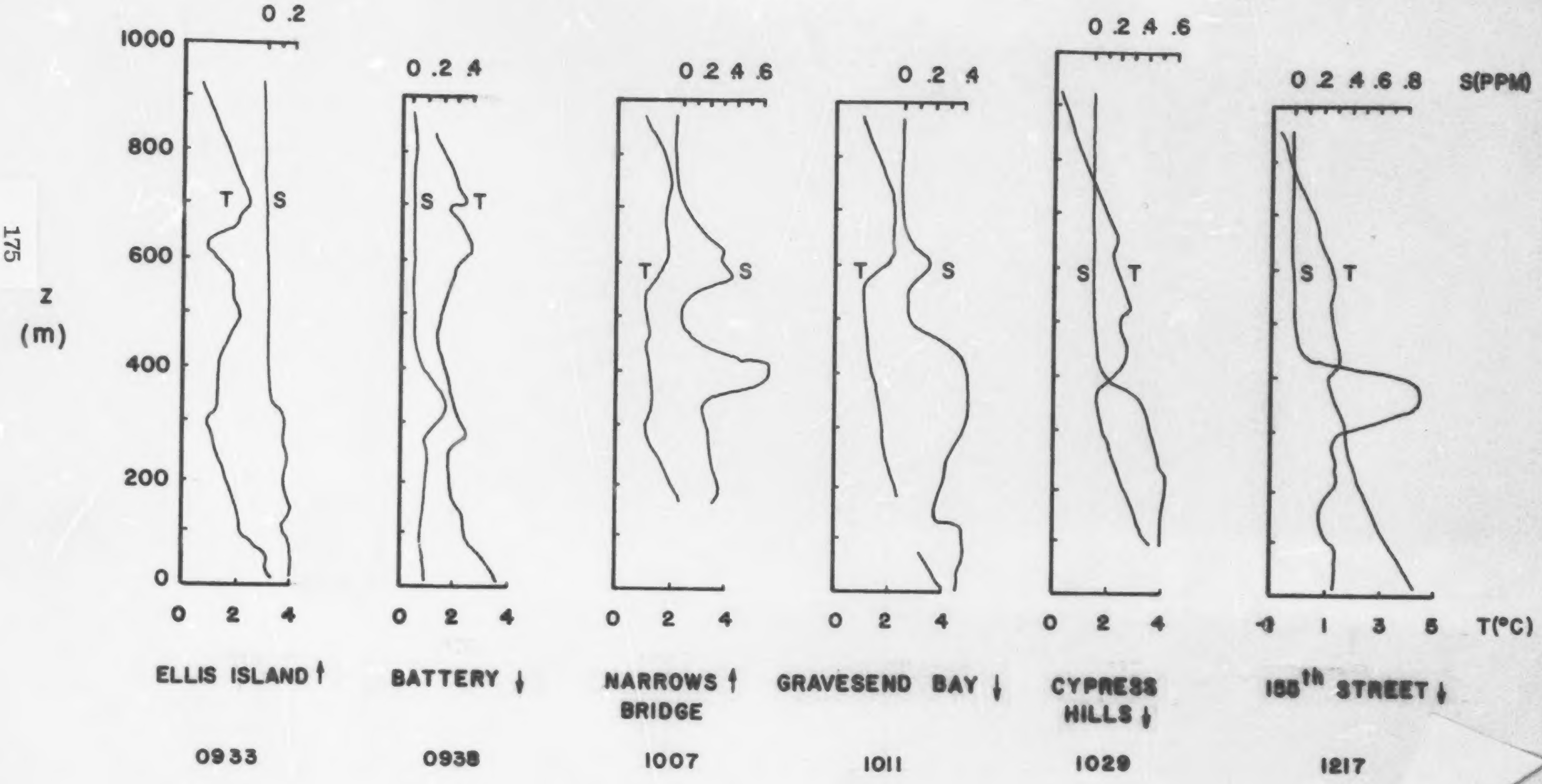
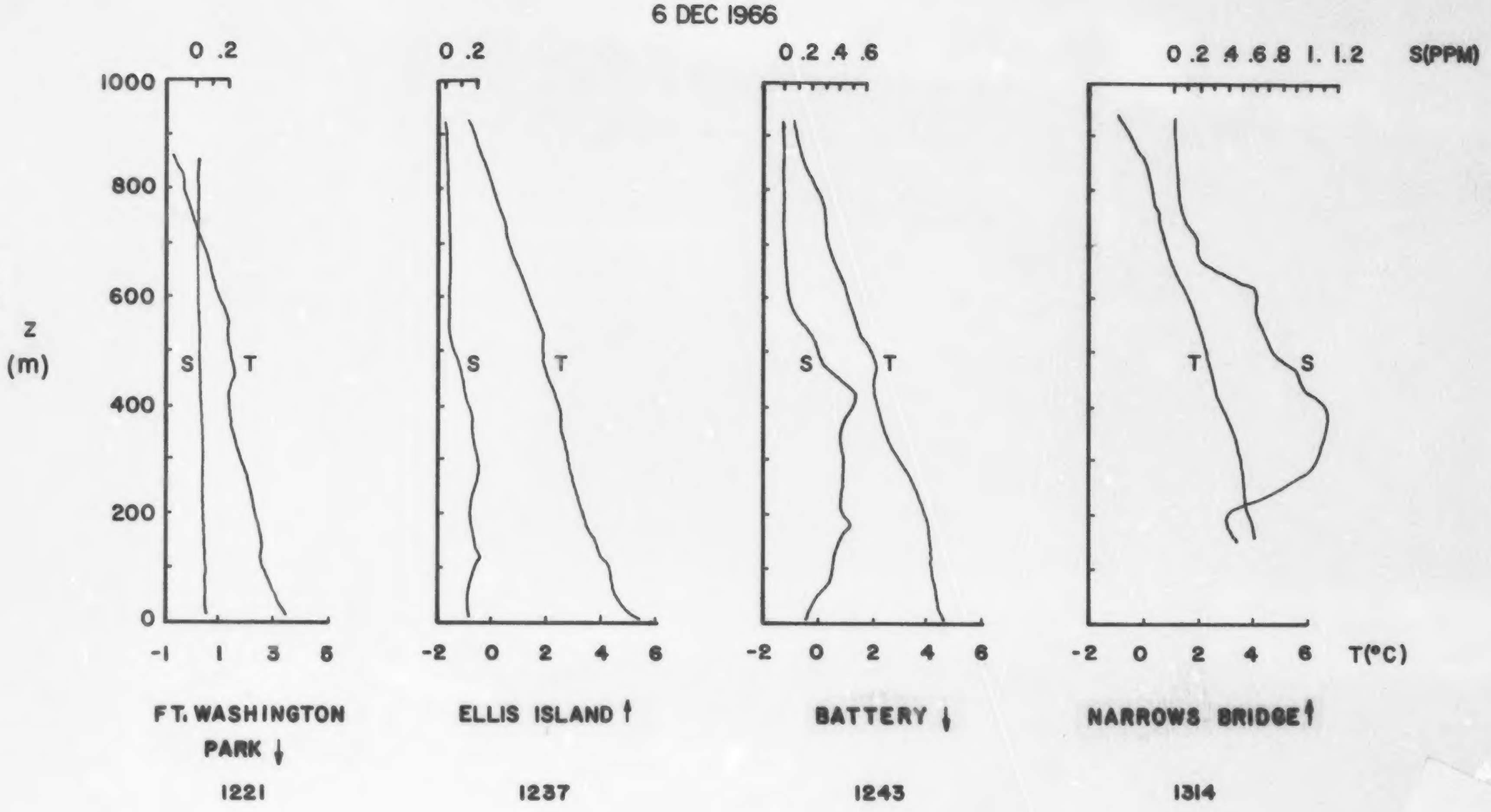
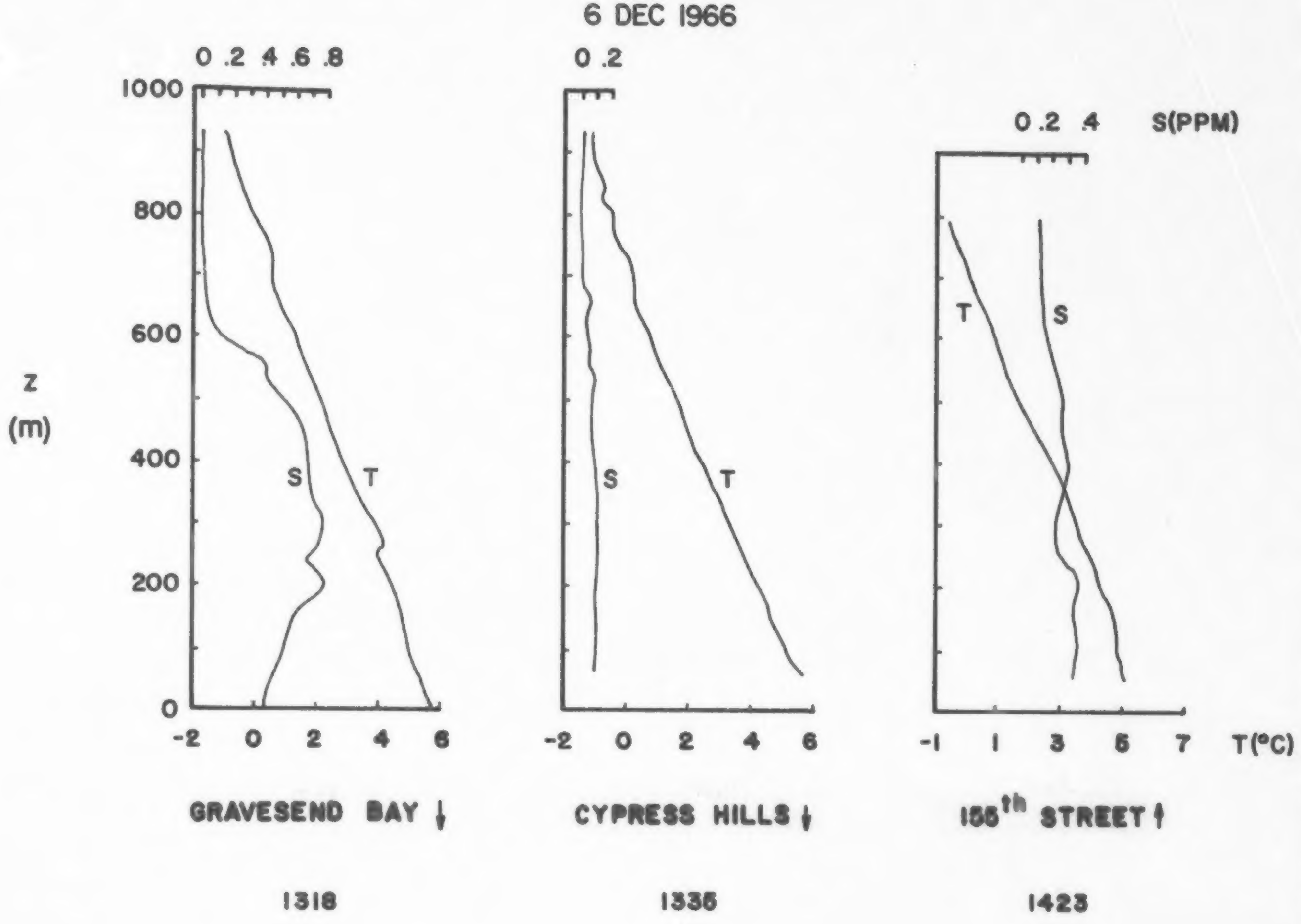
z (m)
1000
800
600
400
200
0
0.1
S
T
-3
-1
1
3
WESTCHESTER ↑
0645
0.1
S
T
-2
0
2
VAN CORTLAND PARK ↓
0652
0 .2 .4
S
T
-3
-1
1
3
155th STREET ↑
0700
0.1
S
T
-2
0
2
4
FT. WASHINGTON PARK ↓
0705
0 .2 .4 .6
S(PPM)
S
T
-3
-1
1
3
T(°C)
ELLIS ISLAND ↑
0720


6 DEC 1966
Z (m)
1200
1000
800
600
400
200
0
S(PPM)
T(°C)
0.2
0 .2 .4
S
T
-3
-1
1
3
5
BATTERY ↓
0725
CYPRESS HILLS ↓
0808
155th STREET ↑
0914
FT. WASHINGTON PARK ↓
0917

6 DEC 1966


z
(m)
1000
800
600
400
200
0
0 .2
0 .2 .4
0 .2 .4 .6
0 .2 .4
0 .2 .4 .6
0 .2 .4 .6 .8
S(PPM)
T
S
0 2 4
-1 1 3 5
T(°C)
ELLIS ISLAND ↑
0933
BATTERY ↓
0938
NARROWS ↑
BRIDGE
1007
GRAVESEND BAY ↓
1011
CYPRESS
HILLS ↓
1029
155th STREET ↓
1217


6 DEC 1966
z
(m)
1000
800
600
400
200
0
0 .2
0 .2
0 .2 .4 .6
0 .2 .4 .6 .8 1. 1.2
S(PPM)
S
T
-1
1
3
5
-2
0
2
4
6
T(°C)
FT. WASHINGTON PARK ↓
1221
ELLIS ISLAND ↑
1237
BATTERY ↓
1243
NARROWS BRIDGE ↑
1314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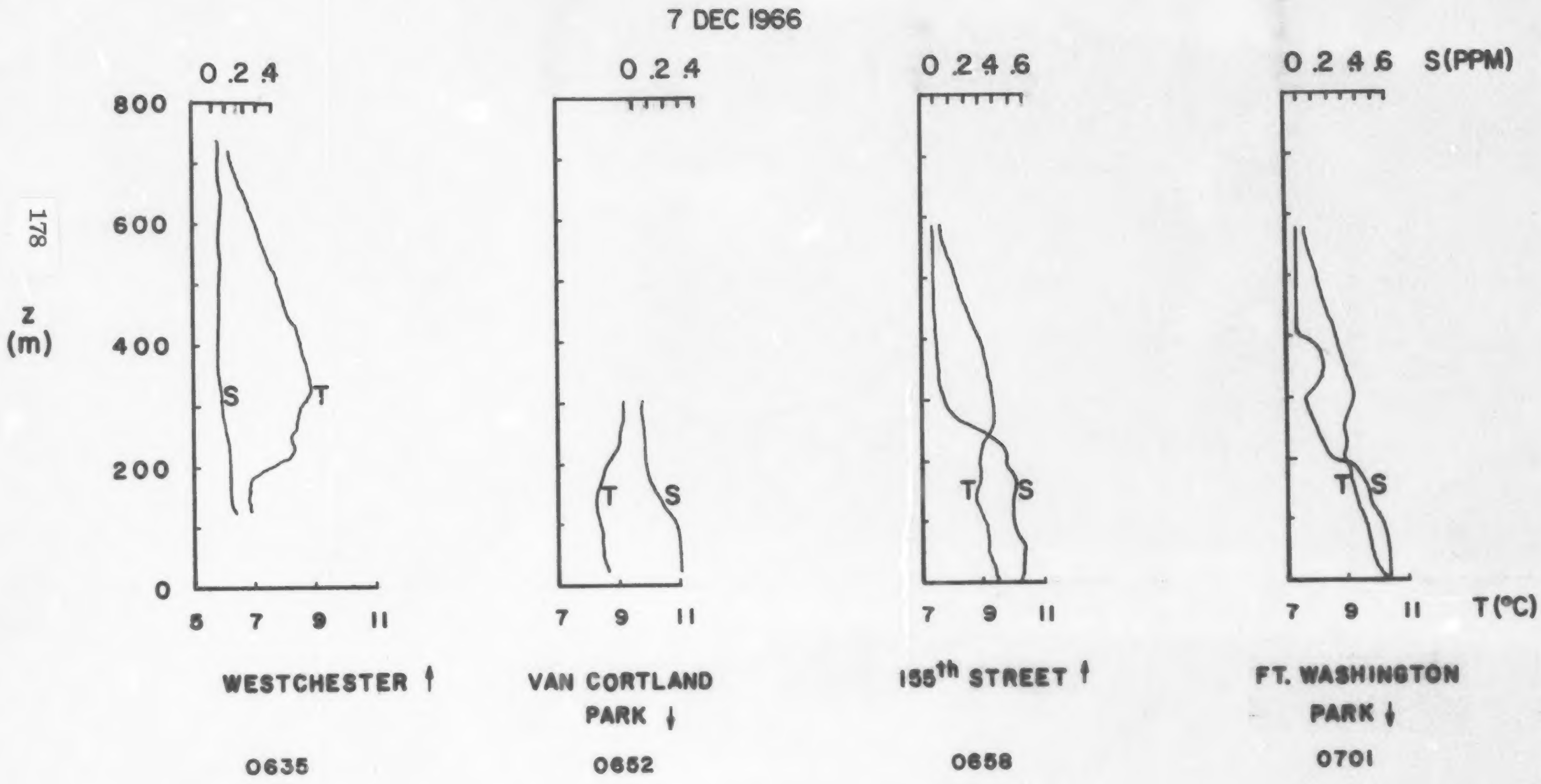
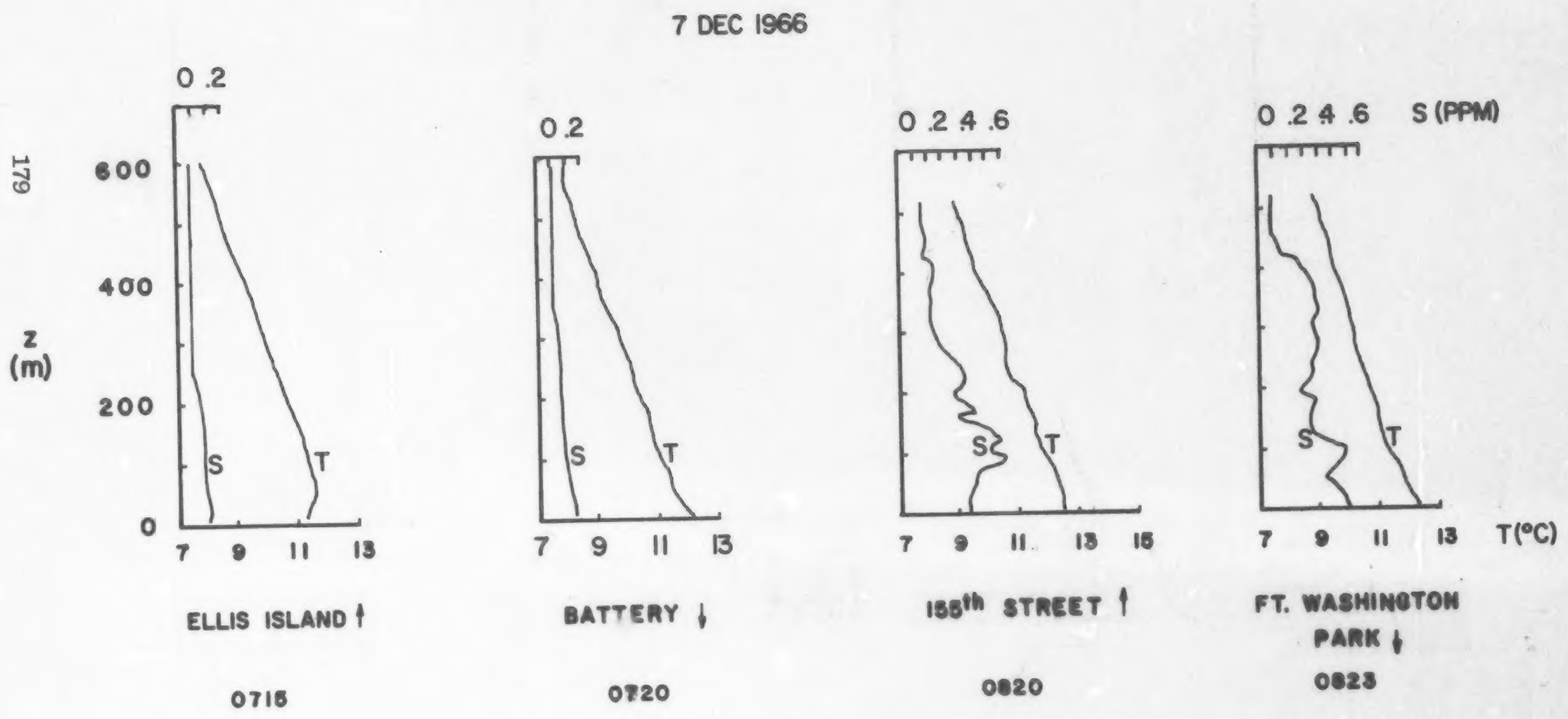
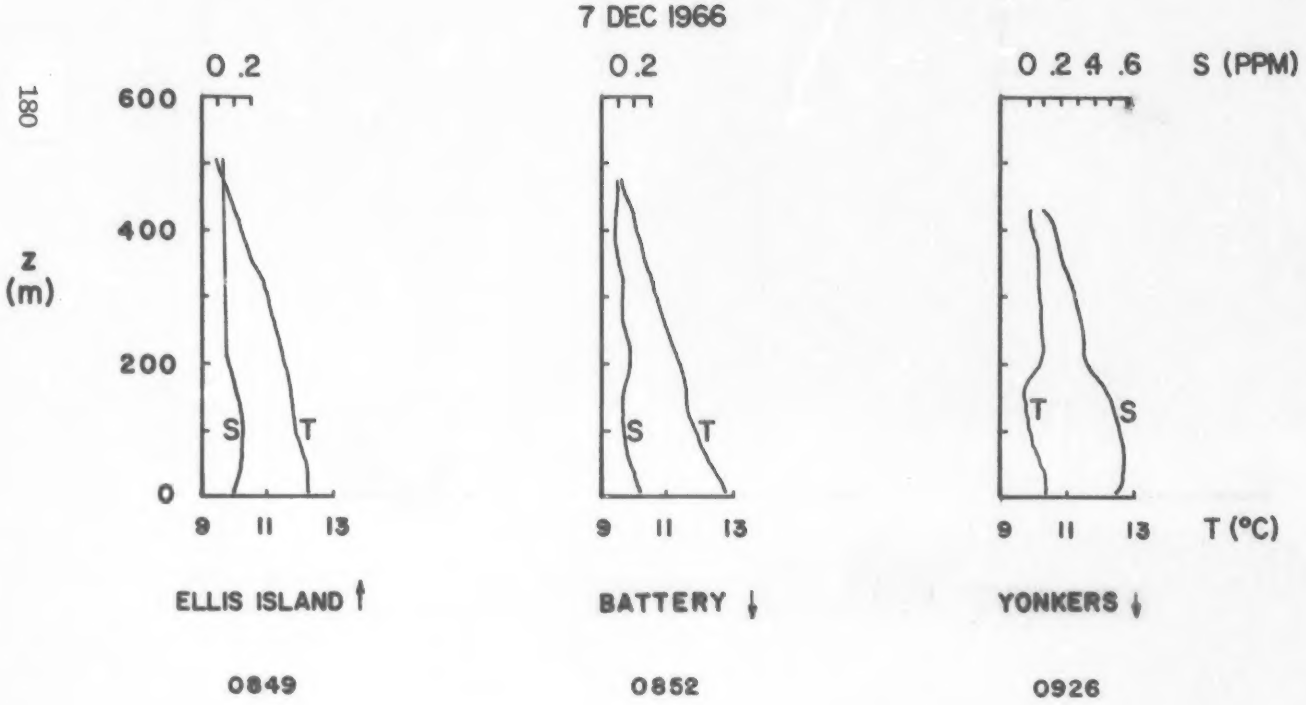
0 .2 .4 .6 .8
0 .2
0 .2 .4
S(PPM)
Z
(m)
1000
800
600
400
200
0
S
T
-2
0
2
4
6
-1
1
3
5
7
T(°C)
GRAVESEND BAY ↓
CYPRESS HILLS ↓
155th STREET ↑
1318
1335
1423


7 DEC 1966
z (m)
0
200
400
600
800
0 .2 .4
S
T
5
7
9
11
WESTCHESTER ↑
0635
0 .2 .4
T
S
7
9
11
VAN CORTLAND PARK ↓
0652
0 .2 .4 .6
T
S
7
9
11
155th STREET ↑
0658
0 .2 .4 .6
S(PPM)
T
S
7
9
11
T(°C)
FT. WASHINGTON PARK ↓
0701


7 DEC 1966
z
(m)
600
400
200
0
0 .2
7
9
11
13
S
T
ELLIS ISLAND ↑
0715
0 .2
7
9
11
13
S
T
BATTERY ↓
0720
0 .2 .4 .6
7
9
11
13
15
S
T
155th STREET ↑
0820
0 .2 .4 .6
S (PPM)
7
9
11
13
T(°C)
S
T
FT. WASHINGTON PARK ↓
0823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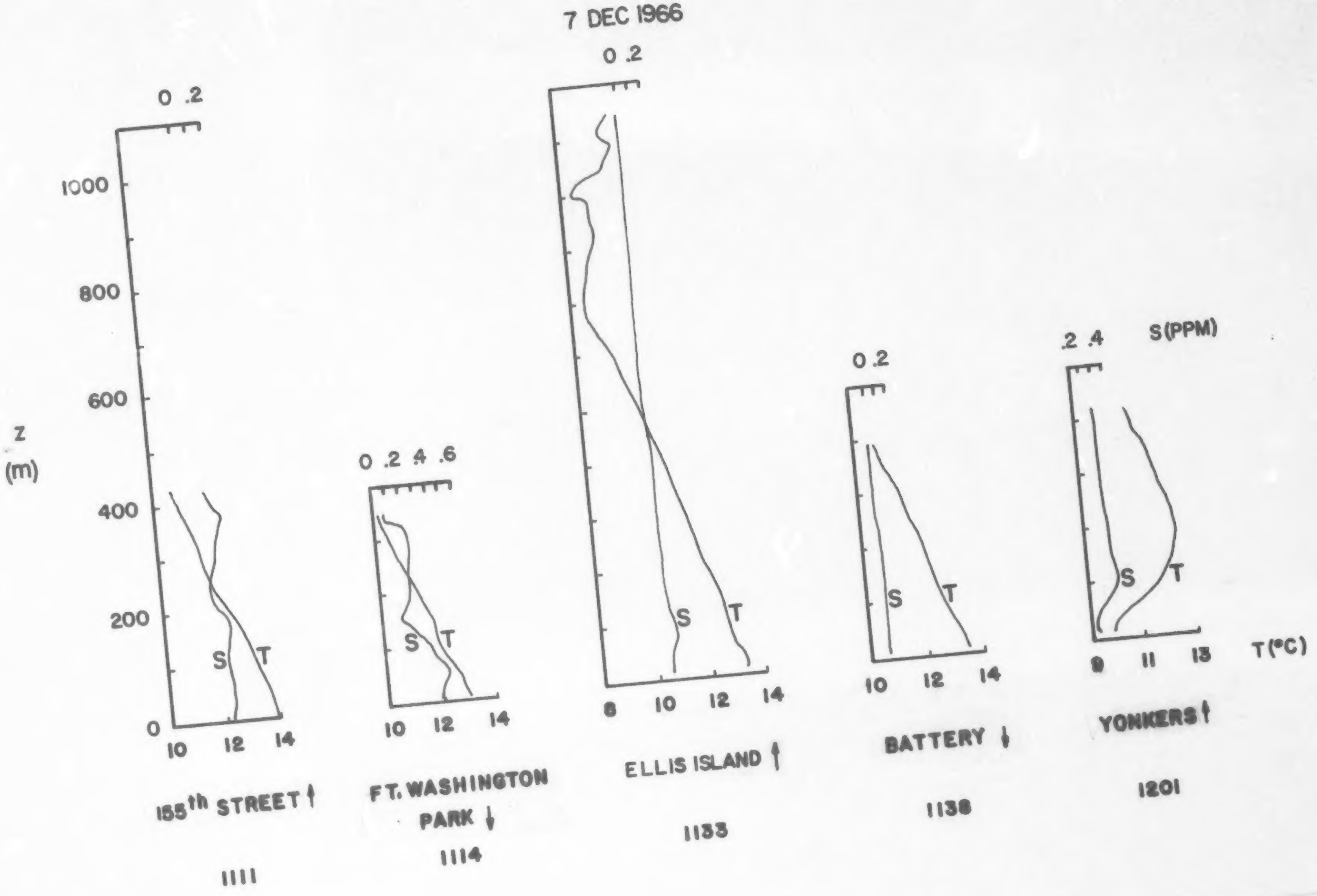
0 .2
0 .2
0 .2 .4 .6
S (PPM)
600
400
200
0
z (m)
S
T
S
T
T
S
9
11
13
9
11
13
9
11
13
T (°C)
ELLIS ISLAND ↑
BATTERY ↓
YONKERS ↓
0849
0852
0926


7 DEC 1966
z
(m)
0
200
400
600
800
1000
0 .2
S
T
10
12
14
155th STREET ↑
1111
0 .2 .4 .6
S
T
10
12
14
FT. WASHINGTON
PARK ↓
1114
0 .2
S
T
8
10
12
14
ELLIS ISLAND ↑
1133
0 .2
S
T
10
12
14
BATTERY ↓
1138
.2 .4
S(PPM)
S
T
9
11
13
T(°C)
YONKERS ↑
1201

APPENDIX IV

HOURLY SO_2 EMISSION RATES IN TONS PER HOUR

March, 1966

P - 2

t(EST)	3/8	3/9	3/10	3/11	3/12
0030	1.42	1.42	1.32	1.42	1.42
0130	1.42	1.42	1.32	1.42	1.42
0230	1.28	1.42	1.42	1.42	1.42
0330	1.14	1.42	1.42	1.42	1.42
0430	1.21	1.42	1.42	1.42	1.42
0530	1.28	1.42	1.42	1.42	1.42
0630	1.49	1.42	1.35	1.42	1.42
0730	1.70	1.56	1.56	1.66	1.74
0830	1.77	1.56	1.77	1.77	1.77
0930	1.77	1.56	1.77	1.77	1.77
1030	1.77	1.56	1.56	1.77	1.77
1130	1.77	1.56	1.56	1.77	1.77
1230	1.77	1.56	1.66	1.77	1.77
1330	1.77	1.77	1.77	1.77	1.77
1430	1.77	1.77	1.77	1.77	1.77
1530	1.77	1.77	1.77	1.77	1.77
1630	1.77	1.77	1.77	1.77	1.77
1730	1.77	1.77	1.77	1.77	1.77
1830	1.77	1.77	1.77	1.77	1.77
1930	1.77	1.77	1.77	1.77	1.77
2030	1.77	1.77	1.77	1.77	1.77
2130	1.77	1.77	1.77	1.77	1.77
2230	1.42	1.70	1.77	1.77	1.77
2330	1.42	1.42	1.56	1.49	1.56

March, 1966

P - 7

t (EST)	3/8	3/9	3/10	3/11	3/12
0030	0.19	0.17	0.17	0.17	0.13
0130	0.17	0.18	0.17	0.17	0.13
0230	0.17	0.18	0.18	0.17	0.13
0330	0.17	0.18	0.18	0.18	0.13
0430	0.17	0.18	0.18	0.18	0.13
0530	0.24	0.33	0.32	0.28	0.13
0630	0.54	0.58	0.58	0.50	0.18
0730	0.48	0.57	0.58	0.55	0.28
0830	0.58	0.58	0.58	0.56	0.31
0930	0.59	0.57	0.58	0.56	0.31
1030	0.58	0.50	0.46	0.55	0.31
1130	0.55	0.50	0.51	0.56	0.30
1230	0.55	0.52	0.58	0.56	0.30
1330	0.55	0.50	0.41	0.55	0.30
1430	0.57	0.50	0.52	0.55	0.31
1530	0.60	0.50	0.57	0.57	0.30
1630	0.60	0.50	0.57	0.56	0.30
1730	0.60	0.50	0.57	0.56	0.30
1830	0.60	0.50	0.54	0.50	0.30
1930	0.43	0.43	0.42	0.42	0.30
2030	0.43	0.43	0.40	0.42	0.26
2130	0.44	0.42	0.39	0.42	0.25
2230	0.43	0.39	0.39	0.39	0.25
2330	0.30	0.29	0.34	0.31	0.29

March, 1966

P - 9

t(EST)	3/8	3/9	3/10	3/11	3/12
0030	0.94	0.46	0.98	1.46	1.63
0130	0.62	0.46	0.98	0.91	1.14
0230	0.39	0.36	0.94	0.68	0.88
0330	0.39	0.36	0.81	0.68	0.59
0430	0.39	0.39	0.94	0.68	0.59
0530	0.91	0.65	1.24	1.11	0.91
0630	1.17	1.31	1.56	1.56	1.14
0730	2.54	1.51	2.93	2.67	1.69
0830	3.18	1.93	3.67	4.36	2.05
0930	3.18	2.04	3.48	4.19	2.15
1030	2.73	2.00	3.22	3.84	1.96
1130	2.60	1.83	2.86	3.48	2.28
1230	2.47	2.02	2.67	3.38	1.40
1330	2.73	1.70	2.47	3.06	1.37
1430	2.57	1.76	2.47	2.83	1.37
1530	3.35	1.61	2.60	3.64	1.30
1630	2.67	1.61	2.44	4.03	2.34
1730	2.63	1.79	2.93	4.10	3.25
1830	2.70	1.53	3.32	3.90	2.73
1930	2.47	1.55	3.25	3.64	2.60
2030	2.70	1.43	3.38	3.06	2.60
2130	1.63	1.15	2.70	2.44	2.47
2230	1.46	0.98	2.41	2.34	2.34
2330	1.24	0.47	1.69	1.92	1.89

March, 1966

P - 10

t (EST)	3/8	3/9	3/10	3/11	3/12
0030	0.23	0.23	0.23	0.23	0.23
0130	0.23	0.23	0.23	0.23	0.23
0230	0.23	0.23	0.23	0.23	0.23
0330	0.23	0.23	0.23	0.23	0.23
0430	0.23	0.23	0.23	0.23	0.23
0530	0.23	0.23	0.23	0.23	0.23
0630	1.05	0.94	1.24	0.98	0.79
0730	0.97	1.13	1.24	0.98	3.39
0830	0.84	0.75	1.13	0.57	3.20
0930	0.84	0.75	1.13	0.57	3.20
1030	0.84	0.75	1.13	0.57	3.20
1130	0.84	0.75	1.13	0.57	3.20
1230	0.84	0.75	1.13	0.57	3.20
1330	0.84	0.75	1.13	0.57	3.20
1430	0.84	0.57	0.79	0.64	3.02
1530	0.84	0.57	0.79	0.64	3.02
1630	0.84	0.57	0.79	0.64	3.02
1730	0.84	0.57	0.79	0.64	3.02
1830	0.84	0.45	0.79	0.64	3.02
1930	0.57	0.45	0.79	0.64	3.02
2030	0.23	0.23	0.23	0.64	0.19
2130	0.23	0.23	0.23	0.23	0.19
2230	0.23	0.23	0.23	0.23	0.23
2330	0.23	0.23	0.23	0.23	0.23

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P - 11

t (EST)	3/8	3/9	3/10	3/11	3/12
0030	0.56	1.06	0.77	0.59	1.01
0130	0.56	0.77	0.38	0.36	0.47
0230	0.56	0.43	0.38	0.36	0.41
0330	0.56	0.43	0.38	0.36	0.41
0430	0.56	0.43	0.38	0.36	0.41
0530	0.63	0.72	0.65	0.52	0.41
0630	0.88	1.06	1.04	0.97	0.59
0730	1.15	1.71	1.42	1.15	0.74
0830	1.82	2.05	2.00	1.87	1.13
0930	2.03	2.18	2.00	2.16	1.55
1030	2.09	2.09	2.00	2.36	1.55
1130	2.00	1.96	2.00	2.50	1.69
1230	2.09	2.00	1.87	2.57	1.58
1330	2.09	2.12	1.58	2.57	1.40
1430	2.00	2.12	1.06	2.57	1.40
1530	2.03	2.12	1.13	2.57	1.40
1630	2.07	2.12	1.22	2.57	1.40
1730	2.07	2.21	1.40	2.57	1.71
1830	2.03	2.30	1.53	2.57	2.07
1930	1.89	1.89	1.51	2.39	1.76
2030	1.73	1.35	1.42	2.03	1.58
2130	1.53	1.22	1.01	1.85	1.58
2230	1.24	1.22	0.70	1.64	1.49
2330	1.24	1.22	0.70	1.22	1.24

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P - 13

t(EST)	3/8	3/9	3/10	3/11	3/12
0030	1.74	1.35	1.73	1.73	1.59
0130	1.74	1.35	1.73	1.50	1.93
0230	1.74	1.35	1.83	1.53	1.93
0330	1.74	1.38	1.74	1.53	1.93
0430	1.74	1.38	1.74	1.53	1.93
0530	1.96	1.81	1.87	2.32	1.87
0630	2.68	3.18	2.49	2.66	1.76
0730	3.62	3.33	3.36	3.51	1.79
0830	3.94	3.06	3.42	3.74	1.86
0930	4.04	3.14	3.47	4.50	1.86
1030	3.80	3.18	3.43	4.50	1.86
1130	3.60	3.12	3.46	4.52	1.86
1230	3.48	3.05	3.06	4.41	1.86
1330	3.42	3.16	3.34	4.52	1.86
1430	3.42	3.10	3.35	4.52	2.17
1530	3.63	3.31	3.43	4.63	2.22
1630	3.61	3.70	3.71	4.54	2.19
1730	3.61	3.70	3.78	4.54	2.63
1830	3.61	3.67	4.03	4.32	2.80
1930	3.70	3.26	3.97	3.24	2.51
2030	2.70	3.31	2.96	3.03	2.24
2130	2.95	2.90	3.00	2.56	2.24
2230	3.13	2.59	3.00	1.97	2.24
2330	2.65	2.02	2.56	2.35	2.22

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P - 14

t(EST)	3/8	3/9	3/10	3/11	3/12
0030	8.84	10.53	10.08	6.74	7.14
0130	7.79	9.23	9.04	6.50	6.46
0230	7.59	9.26	8.40	6.07	6.18
0330	7.88	9.01	8.09	5.95	6.07
0430	8.21	9.00	8.26	6.12	6.09
0530	9.07	9.28	9.10	6.64	6.12
0630	9.77	9.71	9.92	7.22	6.26
0730	13.21	13.13	12.54	9.04	6.90
0830	15.65	15.61	15.83	9.17	7.19
0930	16.08	15.53	15.35	9.17	8.33
1030	16.03	15.59	16.31	9.20	8.37
1130	16.02	15.59	16.31	9.20	8.38
1230	15.88	15.59	16.31	9.20	8.41
1330	16.02	15.59	16.31	9.12	7.77
1430	16.00	15.68	16.22	9.12	7.76
1530	16.01	16.03	16.18	9.12	7.69
1630	16.01	16.24	16.12	9.10	8.20
1730	16.10	16.17	16.08	9.10	9.14
1830	16.10	16.18	16.10	9.10	9.16
1930	16.09	16.18	15.20	9.02	9.14
2030	16.09	16.18	13.36	9.03	9.10
2130	14.90	14.92	11.13	8.95	8.85
2230	13.10	12.94	8.75	8.69	8.41
2330	11.07	10.53	6.72	7.26	7.66

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P - 15

t(EST)	3/8	3/9	3/10	3/11	3/12
0030	0.21	0.20	0.22	0.22	0.23
0130	0.22	0.20	0.22	0.21	0.21
0230	0.22	0.20	0.22	0.22	0.21
0330	0.22	0.21	0.22	0.22	0.21
0430	0.22	0.21	0.22	0.22	0.21
0530	0.29	0.29	0.28	0.22	0.21
0630	0.49	0.47	0.42	0.42	0.31
0730	0.60	0.53	0.55	0.66	0.32
0830	0.67	0.67	0.70	0.72	0.32
0930	0.66	0.69	0.70	0.72	0.32
1030	0.66	0.67	0.70	0.71	0.51
1130	0.66	0.64	0.70	0.71	0.51
1230	0.66	0.67	0.69	0.71	0.50
1330	0.66	0.68	0.70	0.72	0.50
1430	0.63	0.68	0.70	0.72	0.50
1530	0.67	0.65	0.71	0.72	0.50
1630	0.68	0.67	0.71	0.72	0.50
1730	0.68	0.67	0.70	0.72	0.50
1830	0.67	0.58	0.64	0.65	0.50
1930	0.48	0.48	0.52	0.53	0.50
2030	0.48	0.48	0.53	0.52	0.42
2130	0.48	0.47	0.52	0.51	0.43
2230	0.48	0.26	0.52	0.51	0.42
2330	0.21	0.24	0.40	0.39	0.31

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P - 16

t(EST)	3/8	3/9	3/10	3/11	3/12
0030	5.88	4.20	5.33	6.05	5.33
0130	5.83	4.20	4.85	5.88	5.21
0230	5.59	3.82	4.35	5.75	4.96
0330	5.21	4.05	4.22	5.59	4.96
0430	5.44	4.35	4.19	5.75	4.96
0530	5.49	4.69	4.40	6.09	5.17
0630	5.81	5.17	5.26	6.34	5.21
0730	6.29	5.63	6.41	6.93	5.29
0830	6.34	6.51	6.83	7.10	5.29
0930	6.34	6.87	6.97	7.10	5.88
1030	6.03	6.87	6.76	7.10	5.88
1130	5.84	6.87	6.93	6.76	5.88
1230	5.84	6.87	6.93	6.30	5.88
1330	5.84	6.87	6.93	6.97	5.88
1430	5.88	6.75	7.01	7.01	5.88
1530	5.59	6.75	7.01	7.06	5.92
1630	5.59	6.89	6.97	7.06	5.88
1730	5.84	6.96	6.97	7.01	5.92
1830	5.84	6.96	7.01	6.96	5.88
1930	5.84	7.00	6.97	6.18	5.88
2030	5.42	7.00	6.89	5.84	5.92
2130	5.50	6.96	6.97	5.84	5.67
2230	5.33	6.45	6.80	5.67	5.71
2330	4.66	5.43	6.13	5.50	5.63

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P - 17

t (EST)	3/8	3/9	3/10	3/11	3/12
0030	1.15	1.46	1.15	1.74	1.99
0130	1.18	1.46	0.99	1.54	2.01
0230	1.15	1.13	0.90	1.67	2.01
0330	1.12	1.10	0.82	1.61	1.96
0430	1.12	1.17	1.21	1.67	1.68
0530	2.23	2.05	1.94	1.61	1.76
0630	3.68	4.25	3.37	4.01	2.45
0730	4.30	5.16	4.70	5.45	2.71
0830	4.19	6.28	5.14	6.64	2.96
0930	4.19	6.26	5.05	6.20	3.68
1030	4.19	6.28	4.96	6.26	4.28
1130	3.92	5.78	3.73	5.97	3.71
1230	3.59	6.37	4.19	5.53	3.09
1330	3.66	5.54	4.56	5.60	3.61
1430	3.57	5.53	5.22	4.89	3.71
1530	3.86	5.44	5.31	5.62	3.22
1630	3.64	5.38	5.16	5.71	3.40
1730	3.68	5.84	5.78	6.24	3.53
1830	3.73	5.14	5.47	5.56	3.70
1930	3.75	5.22	4.30	5.36	2.56
2030	3.92	4.87	4.94	5.62	2.71
2130	4.03	3.71	3.99	4.70	2.34
2230	2.90	2.93	3.00	2.65	2.27
2330	1.39	1.39	2.18	2.01	2.10

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P - 2

t(EST)	11/15	11/16	11/17
0030	1.63	2.13	1.70
0130	1.49	1.89	1.49
0230	1.35	1.56	1.21
0330	1.21	1.42	1.14
0430	1.28	1.49	1.28
0530	1.63	1.77	1.63
0630	1.77	1.89	2.06
0730	2.34	2.48	2.51
0830	2.51	2.51	2.60
0930	2.60	2.51	2.60
1030	2.56	2.51	2.60
1130	2.56	2.51	2.60
1230	2.56	2.51	2.60
1330	2.56	2.51	2.60
1430	2.56	2.51	2.60
1530	2.51	2.48	2.60
1630	2.77	2.63	2.77
1730	2.63	2.63	2.56
1830	2.41	2.56	2.56
1930	2.48	2.48	2.60
2030	2.51	2.48	2.60
2130	2.48	2.48	2.45
2230	2.51	2.41	2.45
2330	2.31	2.34	2.06

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P - 7

t(EST)	11/15	11/16	11/17
0030	0.14	0.14	0.17
0130	0.14	0.15	0.17
0230	0.14	0.16	0.17
0330	0.15	0.16	0.17
0430	0.15	0.16	0.15
0530	0.26	0.30	0.27
0630	0.42	0.48	0.46
0730	0.48	0.54	0.63
0830	0.49	0.53	0.71
0930	0.50	0.53	0.60
1030	0.41	0.53	0.51
1130	0.39	0.40	0.47
1230	0.53	0.47	0.43
1330	0.43	0.48	0.42
1430	0.47	0.48	0.44
1530	0.49	0.48	0.54
1630	0.53	0.53	0.64
1730	0.53	0.68	0.62
1830	0.50	0.68	0.67
1930	0.50	0.68	0.64
2030	0.35	0.53	0.44
2130	0.23	0.43	0.30
2230	0.20	0.33	0.20
2330	0.14	0.17	0.24

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P - 9

t(EST)	11/15	11/16	11/17
0030	0.65	0.65	0.65
0130	0.46	0.46	0.46
0230	0.46	0.46	0.46
0330	0.46	0.46	0.46
0430	0.46	0.46	0.46
0530	0.65	0.65	0.65
0630	1.04	1.11	1.37
0730	1.95	1.79	1.79
0830	2.73	2.77	2.80
0930	2.57	3.00	2.80
1030	2.89	2.97	2.67
1130	3.45	2.61	2.73
1230	2.80	2.12	3.02
1330	3.25	2.61	3.09
1430	2.80	2.64	3.35
1530	2.37	3.07	3.06
1630	4.13	4.47	3.84
1730	3.64	3.75	3.25
1830	3.45	3.46	3.38
1930	3.38	2.90	3.15
2030	3.15	2.97	2.80
2130	1.69	2.80	2.05
2230	1.59	2.12	1.50
2330	1.11	1.08	1.30

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P - 10

t(EST)	11/15	11/16	11/17
0030	0.23	0.23	0.23
0130	0.23	0.23	0.23
0230	0.23	0.23	0.23
0330	0.23	0.23	0.23
0430	0.23	0.23	0.23
0530	0.23	0.23	0.23
0630	0.98	1.13	0.83
0730	2.07	0.98	0.30
0830	3.02	1.32	0.30
0930	3.02	1.32	0.30
1030	3.02	0.98	0.30
1130	3.02	0.98	0.30
1230	2.45	0.98	0.30
1330	2.45	0.98	0.30
1430	2.45	1.06	0.30
1530	2.45	1.92	0.30
1630	2.45	1.92	0.30
1730	2.45	1.92	0.30
1830	2.45	1.92	0.30
1930	2.04	1.70	0.30
2030	0.68	1.32	0.30
2130	0.23	0.23	0.30
2230	0.23	0.23	0.38
2330	0.23	0.23	0.38

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P - 11

t(EST)	11/15	11/16	11/17
0030	4.08	3.15	2.91
0130	3.71	2.96	2.91
0230	3.33	2.96	2.91
0330	3.33	2.96	2.91
0430	3.33	2.96	2.91
0530	3.42	2.96	3.00
0630	3.99	3.62	3.59
0730	5.23	5.15	5.33
0830	6.46	6.00	7.17
0930	7.03	6.34	10.36
1030	7.03	6.39	8.14
1130	6.56	6.77	8.14
1230	6.46	6.77	6.46
1330	7.51	6.77	7.75
1430	7.51	6.77	8.14
1530	7.51	6.96	8.33
1630	8.83	8.11	9.11
1730	9.22	8.11	9.11
1830	7.60	6.87	7.27
1930	6.56	6.49	5.91
2030	6.37	6.10	4.85
2130	5.51	5.15	4.85
2230	3.14	4.20	4.26
2330	3.14	3.24	3.10

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P - 13

t(EST)	11/15	11/16	11/17
0030	1.54	1.41	2.06
0130	1.52	1.41	1.42
0230	1.52	1.41	1.37
0330	1.52	1.41	1.37
0430	1.52	1.41	1.37
0530	2.08	1.76	1.65
0630	4.10	2.69	2.00
0730	3.31	3.73	4.07
0830	3.58	4.50	4.39
0930	4.18	4.92	4.69
1030	4.57	4.83	4.49
1130	4.41	4.79	4.53
1230	4.20	4.86	4.14
1330	4.19	4.86	4.54
1430	4.40	4.91	4.58
1530	4.73	5.23	5.02
1630	5.15	5.64	5.32
1730	5.63	5.64	5.34
1830	5.29	4.03	4.76
1930	4.63	4.86	4.69
2030	3.81	4.31	4.69
2130	3.52	3.74	3.39
2230	3.03	3.32	2.44
2330	1.90	2.98	1.73

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P - 14

t(EST)	11/15	11/16	11/17
0030	6.90	7.20	6.96
0130	6.91	6.73	6.78
0230	6.96	6.49	6.65
0330	6.78	6.46	6.87
0430	6.96	6.63	6.94
0530	7.38	7.08	7.65
0630	8.06	8.24	8.71
0730	11.56	10.51	10.58
0830	13.29	11.26	10.10
0930	12.89	11.28	10.21
1030	12.19	11.28	10.23
1130	12.22	11.20	10.23
1230	12.38	11.28	10.23
1330	12.38	11.28	10.23
1430	12.38	11.05	10.23
1530	12.36	11.24	10.22
1630	12.53	11.35	10.40
1730	12.56	11.40	10.40
1830	12.35	11.19	9.87
1930	11.43	10.19	9.70
2030	11.32	10.25	9.36
2130	11.31	10.11	9.20
2230	10.15	8.94	8.29
2330	8.45	7.56	7.48

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P - 15

t(EST)	11/15	11/16	11/17
0030	0.22	0.25	0.16
0130	0.22	0.25	0.16
0230	0.22	0.25	0.16
0330	0.22	0.25	0.16
0430	0.22	0.25	0.16
0530	0.32	0.37	0.23
0630	0.45	0.44	0.29
0730	0.66	0.46	0.45
0830	0.67	0.45	0.45
0930	0.68	0.45	0.45
1030	0.68	0.46	0.45
1130	0.63	0.41	0.45
1230	0.66	0.45	0.45
1330	0.65	0.45	0.45
1430	0.65	0.45	0.45
1530	0.66	0.46	0.45
1630	0.65	0.47	0.44
1730	0.65	0.44	0.48
1830	0.39	0.50	0.47
1930	0.34	0.50	0.45
2030	0.37	0.50	0.46
2130	0.37	0.42	0.46
2230	0.30	0.45	0.36
2330	0.22	0.29	0.20

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P - 16

t(EST)	11/15	11/16	11/17
0030	4.61	4.40	3.74
0130	4.59	4.03	3.24
0230	4.37	3.79	2.94
0330	4.29	3.74	2.94
0430	4.66	4.07	2.94
0530	4.70	4.46	2.94
0630	5.54	4.50	3.36
0730	6.62	5.68	4.08
0830	6.85	6.30	4.25
0930	6.93	6.09	4.25
1030	6.47	6.09	4.25
1130	5.38	5.96	4.25
1230	5.42	6.14	4.41
1330	5.42	6.06	4.41
1430	6.05	6.20	4.41
1530	6.59	6.12	5.59
1630	7.17	6.16	6.19
1730	7.01	6.04	6.53
1830	6.85	4.95	6.09
1930	6.68	5.09	6.05
2030	6.72	4.50	5.84
2130	6.59	3.88	5.84
2230	6.64	3.89	5.84
2330	5.43	3.87	5.06

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P - 17

t(EST)	11/15	11/16	11/17
0030	1.76	2.32	0.88
0130	1.10	1.56	1.26
0230	0.93	1.58	1.26
0330	0.93	1.52	1.23
0430	0.93	1.69	1.23
0530	1.48	2.06	1.32
0630	3.18	3.84	2.78
0730	4.25	6.23	5.03
0830	4.26	6.81	6.62
0930	4.58	6.51	6.74
1030	5.11	5.95	5.60
1130	5.33	5.84	4.04
1230	4.65	4.49	3.31
1330	5.95	5.10	3.35
1430	6.02	5.23	3.44
1530	6.66	6.49	3.48
1630	7.59	8.85	6.15
1730	6.64	7.60	5.16
1830	5.65	7.49	4.85
1930	5.82	6.34	3.37
2030	4.81	6.53	3.35
2130	4.36	5.60	2.78
2230	2.54	4.10	2.43
2330	1.98	2.24	1.98

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P - 2

t(EST)	12/6	12/7	12/8
0030	1.42	1.77	1.35
0130	1.42	1.99	1.28
0230	1.06	1.77	1.28
0330	1.06	1.56	1.28
0430	1.06	1.28	1.28
0530	1.35	1.42	1.38
0630	1.35	1.63	1.60
0730	2.13	2.51	1.70
0830	2.63	2.60	2.27
0930	2.63	2.48	2.60
1030	2.63	2.48	2.60
1130	2.60	2.31	2.60
1230	2.60	2.31	2.48
1330	2.60	2.56	2.48
1430	2.60	2.60	2.56
1530	2.60	2.60	2.60
1630	2.60	2.56	2.63
1730	2.60	2.60	2.60
1830	2.60	2.62	2.60
1930	2.60	2.60	2.60
2030	2.60	2.60	2.60
2130	2.60	2.56	2.60
2230	2.60	2.37	2.45
2330	2.27	1.99	1.80

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P - 7

t (EST)	12/6	12/7	12/8
0030	0.20	0.17	0.18
0130	0.17	0.17	0.18
0230	0.17	0.17	0.17
0330	0.17	0.17	0.17
0430	0.17	0.17	0.17
0530	0.23	0.17	0.28
0630	0.43	0.43	0.41
0730	0.62	0.56	0.55
0830	0.56	0.55	0.56
0930	0.55	0.56	0.49
1030	0.57	0.56	0.38
1130	0.56	0.53	0.37
1230	0.58	0.54	0.38
1330	0.59	0.55	0.39
1430	0.77	0.53	0.39
1530	0.62	0.58	0.58
1630	0.60	0.58	0.58
1730	0.55	0.58	0.55
1830	0.42	0.42	0.37
1930	0.40	0.40	0.37
2030	0.40	0.39	0.38
2130	0.40	0.39	0.37
2230	0.40	0.23	0.27
2330	0.17	0.18	0.22

December, 1966

P - 9

t (EST)	12/6	12/7	12/8
0030	0.68	0.88	0.88
0130	0.65	0.52	0.62
0230	0.39	0.55	0.68
0330	0.39	0.55	0.65
0430	0.39	0.55	0.65
0530	0.85	0.98	0.81
0630	1.24	1.46	1.11
0730	1.89	1.59	1.59
0830	2.02	1.95	2.21
0930	2.28	2.21	2.11
1030	2.02	2.24	2.11
1130	2.28	2.31	2.15
1230	1.76	2.18	2.15
1330	2.47	2.21	2.28
1430	2.47	2.28	2.08
1530	2.93	2.80	2.08
1630	4.58	4.00	4.13
1730	4.42	3.48	3.58
1830	3.28	2.28	2.86
1930	2.96	1.69	1.89
2030	2.70	1.69	2.11
2130	2.28	1.24	1.14
2230	1.98	1.17	1.11
2330	1.01	1.14	0.78

December, 1966

P - 10

t(EST)	12/6	12/7	12/8
0030	0.23	0.19	0.23
0130	0.23	0.19	0.23
1230	0.23	0.19	0.23
0330	0.23	0.19	0.23
0430	0.23	0.19	0.23
0530	0.23	0.19	0.23
0630	1.39	1.43	1.24
0730	0.94	1.43	0.64
0830	0.45	1.43	0.64
0930	0.45	1.43	0.64
1030	0.45	1.43	0.64
1130	0.38	1.43	0.64
1230	0.38	1.43	0.64
1330	0.38	1.43	0.64
1430	0.38	1.43	0.64
1530	0.38	1.43	0.64
1630	0.38	1.43	0.64
1730	0.38	1.43	0.64
1830	0.38	1.43	0.64
1930	0.38	1.43	0.64
2030	0.23	1.43	0.23
2130	0.23	0.23	0.23
2230	0.19	0.23	0.23
2330	0.19	0.23	0.23

December, 1966

P - 11

t(EST)	12/6	12/7	12/8
0030	2.63	2.81	2.25
0130	2.81	2.25	2.25
0230	2.72	2.25	2.25
0330	2.72	2.25	2.25
0430	2.72	2.25	2.25
0530	3.38	2.25	2.34
0630	3.84	3.19	2.38
0730	6.15	5.16	5.34
0830	6.38	6.56	6.56
0930	7.22	6.56	6.56
1030	7.22	6.56	6.56
1130	7.03	5.25	6.38
1230	6.47	5.53	5.63
1330	6.56	5.53	5.63
1430	6.47	5.53	5.81
1530	6.47	5.91	6.56
1630	8.16	7.78	7.88
1730	7.87	7.78	7.88
1830	7.60	7.03	6.94
1930	6.66	6.00	5.63
2030	5.78	6.00	4.88
2130	4.18	4.88	4.88
2230	3.38	4.31	4.31
2330	2.81	4.13	3.56

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P - 13

t(EST)	12/6	12/7	12/8
0030	1.63	1.20	1.53
0130	1.54	1.20	1.53
0230	1.62	1.20	1.53
0330	1.62	1.20	1.53
0430	1.76	1.30	1.53
0530	1.69	1.78	1.84
0630	2.25	2.45	2.31
0730	3.18	2.84	3.24
0830	3.23	3.24	3.76
0930	2.80	3.83	3.83
1030	3.10	3.91	3.83
1130	3.24	4.27	3.38
1230	3.01	4.01	3.09
1330	2.72	4.01	3.09
1430	2.86	4.09	3.26
1530	3.08	4.44	3.31
1630	4.13	4.72	4.16
1730	4.15	4.35	4.28
1830	3.84	3.90	4.03
1930	3.37	3.91	3.58
2030	3.38	3.00	3.09
2130	3.36	2.32	2.41
2230	2.98	2.19	2.01
2330	2.06	2.03	1.33

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P - 14

t (EST)	12/6	12/7	12/8
0030	10.08	8.08	10.47
0130	9.31	8.97	9.67
0230	9.19	9.14	8.93
0330	9.14	9.25	8.85
0430	9.27	8.91	9.16
0530	10.19	9.82	10.17
0630	12.16	11.60	11.65
0730	14.64	15.27	14.85
0830	16.85	17.31	17.43
0930	16.92	17.70	17.84
1030	17.10	17.18	17.84
1130	17.03	17.21	17.20
1230	17.03	17.30	17.18
1330	17.05	17.35	17.34
1430	17.08	17.43	17.53
1530	17.11	17.37	17.59
1630	17.41	17.62	17.81
1730	16.84	17.42	16.65
1830	16.24	16.27	14.80
1930	15.08	15.85	14.84
2030	13.49	15.76	14.80
2130	11.84	15.52	14.72
2230	10.35	13.23	13.72
2330	8.44	10.33	11.83

December, 1966

P - 15

t(EST)	12/6	12/7	12/8
0030	0.22	0.37	0.24
0130	0.22	0.24	0.24
0230	0.22	0.24	0.24
0330	0.22	0.24	0.24
0430	0.22	0.24	0.22
0530	0.27	0.29	0.27
0630	0.46	0.41	0.47
0730	0.49	0.55	0.55
0830	0.57	0.64	0.60
0930	0.49	0.64	0.49
1030	0.49	0.64	0.45
1130	0.49	0.64	0.45
1230	0.49	0.64	0.45
1330	0.49	0.64	0.45
1430	0.43	0.64	0.58
1530	0.45	0.63	0.60
1630	0.61	0.63	0.60
1730	0.61	0.63	0.60
1830	0.55	0.54	0.56
1930	0.38	0.40	0.40
2030	0.39	0.40	0.39
2130	0.39	0.40	0.40
2230	0.38	0.40	0.40
2330	0.37	0.29	0.24

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P - 16

t(EST)	12/6	12/7	12/8
0030	4.70	5.38	4.03
0130	4.41	4.54	3.61
0230	4.37	3.86	3.40
0330	4.28	3.65	3.28
0430	4.54	3.07	3.28
0530	4.49	3.49	3.49
0630	4.70	3.61	4.03
0730	5.54	5.96	5.63
0830	6.33	6.88	6.26
0930	7.22	6.76	6.43
1030	7.22	6.85	6.38
1130	6.55	6.85	6.75
1230	6.59	6.85	6.69
1330	6.64	6.89	7.03
1430	6.59	6.89	7.03
1530	6.59	7.14	7.20
1630	6.59	7.18	7.20
1730	6.68	7.14	7.16
1830	6.64	7.18	7.16
1930	6.64	7.18	7.11
2030	6.64	7.18	7.24
2130	6.47	7.18	7.20
2230	6.43	6.09	5.90
2330	5.96	4.45	4.59

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P - 17

t(EST)	12/6	12/7	12/8
0030	1.59	2.12	1.24
0130	1.45	1.26	1.26
1230	1.48	1.28	1.32
0330	1.48	1.26	1.35
0430	1.45	1.52	1.28
0530	2.32	1.67	1.92
0630	3.88	4.32	3.90
0730	4.58	4.63	5.31
0830	4.39	6.81	5.33
0930	4.47	6.39	5.47
1030	4.23	6.42	5.12
1130	4.19	6.20	5.34
1230	4.28	6.28	5.34
1330	4.79	6.37	5.67
1430	4.39	6.41	5.93
1530	5.64	6.44	6.59
1630	7.92	6.75	6.42
1730	7.19	6.02	6.22
1830	6.59	5.76	6.46
1930	6.33	4.92	6.62
2030	6.53	5.47	5.34
2130	5.18	3.66	4.43
2230	2.93	2.89	2.47
2330	2.56	2.21	1.94